

1952 .

File No. GJK 1552

C CLASS

P. W. DEPARTMENT

K BRANCH

Subject:— Jog. KARNATH^A electric Grid Scheme.
Misc. Matters—

2397
E

(K) 1953

File No. GJK 1552-K

Letter.

No. T. 8/21/5458
Electric Grid Offices,
Mercantile Bank Building,
Bombay 1. 25th Feb. 1952

To

The Secretary to Government,
Public Works Department,
Bombay.

Subject:- Jog-Karnatak Electric Grid Scheme: Exchange
Telephone at ~~Hubli~~ the Hubli Divisional Office -
approval for.

It was considered necessary to provide an exchange telephone at the Divisional Office of this Department at Hubli for the following reasons:-

Some of the works of this scheme are already in progress and the major portion of the work will have to be completed within the next two years. The Executive Engineer at Hubli has to look after works at eleven different places viz. Sirsi, Hanga, Kayalvad, Dandeli, Hubli, Gadag, Dharwar, Harihar, Ranibennur, Byadgi and Haveri. It would take more than two years for the construction of the Departmental telephone lines. Public telephone call offices exist at Dharwar, Hubli, Gadag and Haveri. Also, we have been informed by the telephone authorities that Public Call offices will be opened at Byadgi and Ranibennur in the near future. Moreover, trunk telephone facilities in the Divisional office would be useful even for giving trunk calls from and to the Head office in Bombay whenever urgent consultations are necessary. The sub-station equipment ordered from the U.S.A. and other materials ordered for the scheme are passing through Bombay to various substation sites and the telephone facilities would enable the Head office to inform the Executive Engineer at Hubli about their movements. Telephone facility at Hubli has been felt essential to contact the Railway and other local authorities, the various contractors etc. to ensure speedy unloading of the Railway wagons and transport and to avoid loss to Government on account of payment of demurrage etc. It will also be of immense use during the construction stage which is expected to commence in a couple of months.

In view of the above, the Executive Engineer, Hubli had his name registered with the telephone authorities for a telephone connection at his Divisional Office in anticipation of Government approval as telephone connections are given in order of priority. Against the total applications of about four hundred parties at Hubli only twenty telephone connections were sanctioned by the Postal Department and the E.E. Hubli was offered one connection. If this offer was declined our Divisional Office would have had to remain in the waiting list for an indefinite period until further connections were sanctioned by the Postal authorities. Under these circumstances, the Executive Engineer, Hubli agreed to take the telephone connection at his Divisional office and has since obtained it with effect from 3-1-1952 in anticipation of Government's approval.

The post and Telegraph Department has given the telephone connection at their own cost and this Department will have to pay only an annual rent of Rs. 257/- for the connection, which will be met out of the establishment contingencies as usual.

Under the circumstances explained above I have approved the exchange telephone installed at the Divisional Office, Hubli and request that formal approval of Government may kindly be accorded for the exchange telephone installed at the Hubli Divisional Office from 3-1-1952.

B. K. R. Khanna
Chief Engineer. 27/2/52

114/21/2/52

3
25K
~~1552/19444~~
Public Works Department.
'K'

Submitted.

2. The Ex. Engr., Hubli, has obtained a telephone connection at his Divisional Office at Hubli from 3-1-52, in anticipation of Govt. approval. The C.E. considers the installation of telephone highly essential in the interest of the Jog-Karnatak Electric Grid Scheme. He has, therefore, approved the exchange telephone installed at Hubli and requests Govt. to accord formal approval. The Posts & Telegraphs Deptt. has given the telephone connection at their own cost and grid Deptt. will have to pay only annual rent of Rs.257 for the connection which will be met by the C.E. out of the establishment contingencies.

3. In view of the necessity of an exchange telephone explained by the C.E. in his letter, approval may be accorded to the exchange telephone installed at the Divisional Office, Hubli, in consultation with the Fin. Deptt., as per draft put up for approval.

Through X. Br.

3577
14/3/52
14/3/52

D.S. (P.T.E.)

15/3

111
18/3/52
40985

U.O. to the F.O. dt. 17th March 1952

BAK 13/3/52

Mr. Peenapudi

Th. P.
Asst. (P.T.E.)
26/3

Issue U.O.
15/3/52
The orders put up by the P.W.D. may be agreed to

P.W.D. dt. 29/3

GJK 1552
31633

4

P.W.B.

K.P.
submitted, with ref. to the
a.N. at p-3 ante.

2. The F.R. has agreed to the
draft at p-5 which may
issue. Three B.B.

Rh
2/4/52

King
E-4-52

W
uh

D.S. (GHE)

1-4

W. D.
GJK 1552

31633

Shen New
1/4/52

2

K

1-4-52

Letter.

No. GJK 1552 K.

Public Works Department,
Bombay Castle (Bombay No. 1),

8th April 1952.

To

The C.E., B.E.G.

Subject:- Jog-Karnatak Elec. Grid Scheme:
Installation of an exchange
telephone at Divinl. Office,
Hubli. .

Reference: Your letter No. TS/21/5458, dt. the

25-2-52.

2. The exchange telephone installed at the Divinl.

Office, Hubli, from 3-1-52, is approved.

3. The expe. should be met from your
By order of the Governor of Bombay,

*current year's
saved. expts under
"S2-A - Other Revenue Expe. connected with Electricity
Schemes - I - Establt."*

Deputy Secretary to the Government of Bombay,
Public Works Department.

D.A. - Nil.

Copy forwarded to -

the F.D.,
the A.G., Bombay (Memo to F.D.),

BAK 13/1/52.

for information

*U.S. 23
14/3/52
14/4/52*

No. GJK 1552 K.

Letter.

Public Works Department,
Bombay Castle (Bombay No.1),
8th April 1952.

To

The Chief Engineer, Bombay Electric Grid..

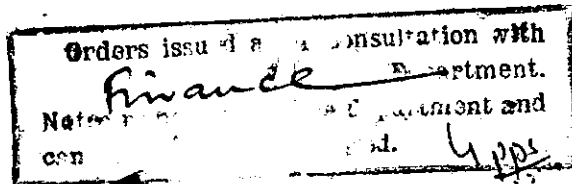
Subject:- Jog-Karnatak Electric Grid-Scheme:
Installation of an exchange telephone
at Divisional Office, Hubli.

.....

Reference: Your letter No. TS/21/5458, dated the 25th
February 1952.

2. The exchange telephone installed at the Divisional
Office, Hubli, from 3rd January 1952, is approved.

3. The expenditure should be met from your current year's
sanctioned grants under "52-A-Other Revenue Expenditure
connected with Electricity Schemes-I-Establishment".



By order of the Governor of Bombay,

O/C

2/4/52

D.A.-Nil.

Deputy Secretary to the Government of Bombay,
Public Works Department.

Copy forwarded to,-

the Finance Department,
the Accountant General, Bombay (through the
Finance Department),

for information.

4
SAM. *Issued*
8/4/52. *9/4/52*

1

No. PCI-2751-R,
Development Department,
Secretariat (Annexe), Fort,
Bombay No. 1, 18th May 1952.

From

The Deputy Secretary to the Government of Bombay,
Development Department.

To

Shri B.N. Datar,
Member, Special Committee on the Draft Five Year Plan,
C/o. Karnatak Pradesh Congress Committee, Hubli.

Subject:- Five Year Plan.
Special requirements of the Bombay
Karnatak region under the - - -

Sir,

With reference to your letter, dated the 18th October 1951, addressed to the Honourable Chief Minister, I am directed to state as follows in connection with various schemes proposed by you for inclusion in the Five Year Plan, contained in your letter referred to above and the Memorandum dated 15th July 1951, submitted to Honourable the Prime Minister and Chairman of the Planning Commission, by the President, Karnatak Pradesh Congress Committee.

Jog Power distribution :- The Government of Mysore has agreed to supply electric power to this State to the extent of 10,000 k.w. at Jog and 1,500 k.w. at Harihar, and it has been decided to distribute this quantum of power at Sirsi, Hangal, Dandoli, Hubli, Odag and Dharwar on the Jog Section and at Ranobennur, Badagi and Haveri on the Harihar Section. In the lay out and design, provision has been made for further extension of the scheme with the least additional cost, if and when the Government of Mysore spares more power from the Jog Station.

Spread of Educational Facilities :- A scheme for opening schools in School-less villages has already been included in the Plan.

Connecting remote roads :- A scheme of construction of roads connecting villages having a population of 500 persons or above has been included in the Post War Road Development Plan submitted to the Government of India.

Expansion of Geological Section of the Karnatak University :- The University might go ahead with the starting of the Geology Department from out of the grants made available to it by Government and from other resources of its own.

Adequate equipment for the Engineering College, Hubli :- Government has sanctioned a special grant of Rs. 1,30,000 in the year 1951-1952 for buildings and equipment for the B.V. Dhoomraddy College of Engineering, Hubli.

Development of Minor Ports :- Relative claims of all important minor ports on the West Coast for development as a major port, were examined by the West Coast Major Port Development Committee, appointed for the purpose by the Government of India, Ministry of Transport, and its recommendations are being considered by the Central Government.

Railways :- Out of the five railway lines suggested for being recommended to the Central Government this Government has already recommended to the Railway Board, construction of the railway line between Hubli and Karwar.

Highway between Bombay and Mangalore :- It has been decided to convert a portion of the West Coast Road in this State into a National Highway.

Bridging of ferry crossings :- Investigations for bridging certain ferry crossings in the North Kanara district are being carried out by Government.

As regards other schemes suggested by you, I am directed to state that most of them have been under consideration of Government but it has not so far been possible to include them in the Plan, as the

latter has been almost entirely restricted to schemes already in execution. Government would give careful consideration to various suggestions made by your committee, as and when some of the schemes already taken up are completed or if additional funds become otherwise available. As regards, your suggestion that certain industries in Karnatak should be developed properly, I am directed to state that Government is prepared to assist industrial concerns when they approach Government with specific requests for any facilities or concessions.

Yours faithfully,

M. G. K. Raj

for Deputy Secretary to the Government of Bombay,
Development Department.

Copies forwarded for information to :-

- ✓ The Public Works Department,
- The Local Self Government and Public Health Department,
- The Education Department,
- The Registrar Cooperative Societies,
- The Joint Registrar for Industrial Cooperatives and Village Industries,
- The Director of Industries.

K.P.

VGB/14.5.

Submitted for information

Record

[Through C.M. Am.]

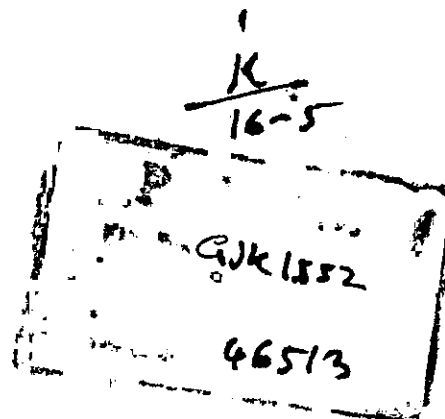
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19/5/52

sec
27/5/52

A.A.S.

file
20/5



INTERNAL SECURITY

81-2181

Electric and Engines,
Weymouth Bank Building,
Bombay 1.
March, 1928.

Chief Engineer,
Bombay Electric Grid,
Bombay.

NEWBIS VOLKART BROS.,
Bombay.

Subject: - Jog-Karnatak Electric Grid Scheme -
- Communication System -
Carrier Current Equipment.

Reference:- Your tender No. KI/7347 E 35857 dated 10.1.58.
 & Letter Nos. KI/5885-E.35857 dated 14.2.58.
 KI/5964-E.35857 dated 18.2.58.
 KI/5958-E.35857 dated 10.2.58.
 KI/6103-E.35857 dated 14.3.58.
 KI/6607-E.35857 dated 25.3.58.

Dear Sirs,

THIS DOCUMENT CONTAINS NEITHER RECOMMENDATIONS NOR
CONCLUSIONS OF THE NATIONAL BUREAU OF STANDARDS
AND IS NOT TO BE USED FOR PROMOTING PRODUCTS OR
FOR ENDORSEMENT OF ANY SPECIFIC ORGANIZATION, PRODUCT
OR ACTIVITY. IT IS THE PROPERTY OF THE NATIONAL BUREAU
OF STANDARDS AND IS LOANED TO YOUR ORGANIZATION; IT
AND ITS CONTENTS ARE NOT TO BE DISTRIBUTED OUTSIDE
YOUR ORGANIZATION.

your representatives had with our Girl, R.P. Desai Superintending Engineer (Transmission), I accept your tender for the supply and erection of the Carrier Current telephone equipment for the 110 K.V. System of the Jodhpur Electric Grid Scheme, subject to the terms and conditions

***ЗЕРНОВОГО ПОДЪЯ**

(a) Supply, distribution to site, erection, testing and setting to work of the Carrier Current Telephone communication equipment of the fixed frequency system as per alternative II of your letter No. EL/8964-K. 25857 dated 18.2.68 and as per details mentioned in the enclosed schedule of equipment. The prices, delivery periods etc. as accepted are

7 MO 104 802 80 1747

Abstract Schedule of prices and delivery periods:

Fixed Frequency System (on all 110 KV sections).

No.	Station	F.O.R. Bombay; F.O.R.	Direction	Total	Remarks.
		: :	: :	: :	: :

1.	08	22,684	22,760	3,306	26,066	Delivery 10-12 months & erection 3 months
2.	1751	47,348	48,058	5,836	53,894	
3.	1752	69,713	70,759	8106	78,865	
4.	1753	22,424	22,750	2306	26,066	
5.	1754	38,159	38,641	4294	36,935	
	1755	1,94,068/-	1,96,978	24,848	2,21,826	

This includes cost of 100 yds. of co-axial cable at every substation.

13

6. 2 Nos. ~~Two~~ way telephone sets special at Rs.947/- each delivered at site at Hubli for connection to H.T. protected line to Gadag and Dharwar = Rs. 1894/-

The Cost of one-Three way telephone set required at Sirsi is included in item 2 above.

8. V.H.F. Radio and Telephone equipment 3 sets of fixed and mobile Stations for Sirsi, Dandeli and Hubli including accessories = Rs.38535/-

Total Rs. 2,52,255.

Rupees two lacs, sixty two thousand, two hundred and fifty five only. The erection cost of these is included in the lump sum accepted above.

General

(1) Validity

The award of this contract is subject to the Government of India agreeing to issue the import licence for the equipment and the posts & Telegraphs department agreeing to the adoption of the Carrier Frequency proposed by you.

(2) Co-ordination with other contractors.

The order for the substation equipments has been placed with Messrs. International General Electric Co. Bombay and the order for the H.T. Protected Telephone equipment for the 33 K.V. and 11 K.V. Systems has been placed with Messrs. Protos Engineering Co. Bombay and you have to work in Collaboration with them for Co.ordinating the works relating to the Carrier Equipment. The layout of the substations will be forwarded to you in due course.

(3) General Conditions of Contract.

I note the changes proposed by you in respect of some of the clauses relating to the general conditions of contract of plant, machinery and manufactured equipment and electrical works. These are being examined and our comments on these will be issued separately.

In regard to despatch and erection I note from your letter dated 11.3.52 that all the insurance of the plant as far as obtainable is covered in your above prices till such time the plant is taken over or for three months after the plant has arrived at site whichever is earlier. The insurance for the ~~the~~ equipment should be effected with the Indian Insurance association pool. Please note that you must hand over the equipment in satisfactory operating condition.

P.T.O.

- 3 -

(4) Terms of payment:

I note that you are agreeable to the standard terms of payment as per clause 25 subject to the following:

(i) 80% of the total contract value excluding erection charges of any portion of the plant and materials from time to time delivered F.O.R. Bombay but at the latest 3 months after notice that the material is ready for despatch from your Principals' works,

(ii) Payment up to 90% of the total contract value excluding erection charges on taking over each complete section of the plant at the latest 6 months after notice that the material is ready for despatch from your Principals' Works,

(iii) Payment upto 90% of all erection charges on taking over each complete section of the plant at the latest 3 months after the European erector has left Switzerland for India.

(iv) The balance of the total Contract Value excluding erection charges at the expiration of twelve months after the due date of payment under (ii) above at the latest 18 months after notice that the material is ready for despatch from your Principal's Works.

(v) The balance of all the erection charges at the expiration of twelve months after the due date of payment under (iii) at the latest 18 months after the last consignment is ready for despatch in your Principal's Works. This is accepted subject to the approval of the Government of Bombay who are being addressed in the matter.

(5) Shipment.

The materials have to be shipped preferably in Indian Ships if that does not involve any delays. You should enquire of the availability of Indian Shipping well before each shipment becomes ready and ship by non Indian Ships only if the delay in waiting is likely to result in demurrage, storage charges. Subject to liability for payment of such charges the goods must be shipped by Indian Ships.

(6) Completeness of the Contract.

I note that the above price does not include the station battery and the 24 Volt Battery for working the automatic equipment and the charging sets which shall have to be provided for running the emergency generating sets and that you require a handling charge of 5% and 7½% for erection in case these are also to be arranged for you.-----

- 4 -

I shall write to you in due course whether the order for these shall be placed directly by the Department or through you.

In regard to L.T. and power supply cables, these may be supplied by you at actual cost plus 5% for handling as stated by you in your above letter.

Except for the above all minor accessories that are necessary for the satisfactory and efficient operation of the plant should be supplied by you free of charge whether specifically mentioned or not by you in your schedules.

(7) Prices.

It is noted that the prices as given above inclusive of erection are firm and not subject to any variation except for the following.

- (1) Rate of exchange Sw.Frs 91 = Rs.100/-
- (2) Marine Insurance at the rate of 0.725% on F.O.B price plus 10%.
- (3) War risk Insurance at the rate of 0.1% on F.O.B. price plus 10%.
- (4) Sea-freight at the rate of Sh.145. per cubic metre of metric ton.
- (5) Customs duty provided for at 5% for coupling equipments and generating equipments and 31.5% for the carrier and Automatic equipments including Mobile Carrier equipment Customs duty at 3% for the V.H.F. equipment, Sales tax extra.

I note that on the basis of the above the railway Sea freight and insurance works on an average of about 5% of prices for materials packed ex-works, Switzerland.

Mobile equipment:- I note that in case we want to order later any additional mobile or carrier set or H.F. fixed and Mobile equipment you agree to keep your prices for these items open till the 15th June 1952.

I note that your Mobile Carrier set can be used even when the H.T. is on at line camps like Siddalguni, provided its own power supply is available by an arrangement shown in the figure on page 4 of your letter dated 14.2.52. Detailed prices for this arrangement comprising of high frequency Choke Coil and compensating

P.T.O.

- 5 - 19

Coupling Coil along with the Potential transformer in addition to the coupling capacitor, line matching unit and protective device that are required for the operation of the mobile Carrier Set may please be forwarded for my acceptance.

It is also noted that you are agreeable to the payments being made in rupees above although the prices quoted are based on Swiss Francs for the materials packed Ex-works.

(8) Erection.

I note that your lump-sum of Rs.24,848 quoted for erection & Commissioning the equipment is firm and includes for one European Engineer, one European Erector and one Indian Erector, all skilled and unskilled labour and that 100 yards of Co-axial cable is included for each of the five substations. Any variation in ^{quantity} ~~quality~~ of this Co-axial cable will be adjusted at a rate of Rs.930/- for 100 yards delivered at site. It is noted that the lump-sum erection charges exclusive of the 500 yds of Co-axial cable (i.e. Rs.24848-Rs. 4650) will not be subject to further adjustment on account of the variation in lengths of Co-axial cables. The pedestal required for mounting the coupling condenser will be supplied by the department and based on the drawings to be supplied by you in case Pedestal mounting is adopted.

Before erection commences all foundation and masonry works will be completed by this Department according to your drawings which should be supplied sufficiently in advance. Your erection programme should be sent to this department sufficiently in advance. After completion of erection and the Commissioning of the plant the operation staff should be trained for a period of about 15 days at each station without any extra charges. In case it is decided to send one of our Indian Engineers to your works at Switzerland it is noted that full facility will be given for his training as per your letter No. EQ/6103-E ³⁵⁸⁵⁷ dated 14-3-52 it being noted that the cost of living while in Switzerland will be borne by you for a period of three months and his to and fro passage from India to Switzerland is not your liability.

(9) Delivery and Completion.

It is noted that the delivery period of 10-12 months mentioned in the tender will commence from the date of receipt

of this order, the import licence and the Swiss Export perm.
note that the duration of erection is estimated to be 3 month
(10) penalty.

It is noted that you guarantee the above delivery period Ex-works and in the event of delay in delivery you accept a penalty as liquidated damages of $\frac{1}{2}\%$ and subject to a maximum of 3% of the contract prices provided the contract is not delayed by instructions or lack of instructions from the Department or by industrial disputes or causes beyond your or your manufacturers reasonable control. The application for import licence may be forwarded in quadruplicate for forwarding to the Central water & Power Commission, Simla.

(11) Storage of materials.

The Department will provide such facilities as are available at site at the time of erection. Any facilities required which are not available at site should be arranged for by you at no extra cost to the Department.

(12) Contract Drawings.

Three copies of the detailed drawings of the various equipment for each station shall be supplied within 10 weeks of the receipt of order for approval. 3 sets of final drawings and one set in ink on cloth and the other two sets in ferrotype prints shall be supplied together with a tracing in ink on cloth.

(13) Tests.

It is noted that the Carrier Communication equipment will be tested at your works under actual service conditions and that a test report will be forwarded. The manufacture and testing of this equipment included in this are subject to inspection by the Departmental representative or I.S.D. London on behalf of this Department and in case the latter is decided upon. All facilities to enable the agents for inspecting the manufacture and tests shall be afforded to them. The name of the agency will be intimated to you in due course.

(14) Test Certificates.

Test certificates shall be furnished in duplicate and no payment will normally be made until the test certificates are approved.

(15) Contract document.

- 1 - B

(15) Contract Document.

A formal agreement will be entered into for which documents will be forwarded to you in due course.

(16) Progress reports.

The contractor should furnish monthly three copies of programme of work and the progress report of manufacture.

(17) Transport.

It is the responsibility of the Contractor to inform himself fully of the transport Condition by rail & road and arrange for the size & weight of the heaviest packages accordingly.

(18) Electricity rules.

All works shall be carried out in accordance with Indian Electricity act unless modified by this Department.

Technical.

Communication System.

~~XXXXXXXXXX~~

The carrier communication System shall work on the fixed frequency system as per alternative II of your letter No. EL/8964-E.35857 dated 12.2.52. The amplitude modulations with double side band duplex transmission proposed to be adopted as accepted. This system should provide satisfactory and clear transmission of speech between Jog and tail end stations. Further communication should be possible between the following stations.

- (1) Jog-Sirsi.
- (2) Sirsi-Kavalvad.
- (3) Kavalvad-Hubli.
- (4) Kavalvad-Dandeli.

The equipment offered will be specifically suited to withstand the tropical conditions existing at the places of installation.



Coupling to H.T. Lines

Phase to Ground Coupling offered by you and which you have guaranteed to be suitable for this 110 k.V. transmission scheme ---.

- 8 - 25

scheme is accepted. I note that the quality of communication will not be affected to any noticeable extent even if there should be an interruption in the phase used for the carrier.

The 250 Amps wave traps offered for all sections are accepted. The method of mounting the wave trap and coupling condenser will be intimated to you shortly. However I would like you to investigate the possibility of mounting the wave trap right on top of the coupling Capacitor thus saving a separate insulated support for the wave trap.

Coupling Capacitors.

The 110 K.V. Coupling Capacitor offered by you is provisionally accepted and as ours is a solidly grounded neutral system. I note from your letter dated 10.3.52 that it is possible to install your standard coupling capacitor rated for 75 K.V. instead of 110 K.V. in which case you would offer a price reduction of Rs. 2270 delivered at site for eight coupling Capacitors involved. This question will be examined later and further instructions to you will be sent hereafter if the insulation of the power line at the substation end & the rated figures of the installed lightning arresters would permit installation of 75 K.V. Coupling Capacitor without interfering with the proper Co-ordination of our transmission system.

Transmitter - Receiver Set.

Transmitter-Receiver Set shall operate on fixed frequency system with amplitude modulation and side band transmission and shall be as described in item 9 of your tender. We note that the band width will be 10 KCS.

It is noted from your leaflet 2185E enclosed with tender that it is possible to provide six channels for dialling remote and supervisory control, telephony, relaying for line protection & telephony. For the present it is not proposed to utilize the channels except for telephony and dialling. Telemetering if required will be arranged for at a later date. But I note that the set will be suitable for being connected for such purpose later.

Automatic Equipment.

It is noted that the following Automatic Equipment will be supplied in the various substations.

- 9 -
- (1) Jog-Subscriber Exchange with priority key.
 - (2) Sirsi - Three Way Telephone Set with priority key - the third way for connection to Hanagal over the H.T. Protected telephone line.
 - (3) Kavalvad - Three way Telephone Set with priority key.
 - (4) Dandeli- Subscriber Exchange with Priority key.
 - (5) Hubli - (a) Automatic Exchange equipped for 15 subscribers and 3 connecting Sets. - including five desk telephone sets out of which two are provided with Priority key.
(b) Two. Two-way Telephone Sets one each for connection to Dharwar and Gadag.

We are providing for the H.T. protected system for the 33 K.V. and 11 K.V. Sections and their order has been placed with Messrs. Protos Engineering Co. but as far as dialling is concerned the H.T. protected and the Automatic Carrier Current system will be treated as two entirely independent systems as recommended by you but as far as Telephone communication is concerned, the H.T. protected telephone subscriber at Hanagal, Gadag and Dharwar shall be connected to any of the subscribers of Automatic Telephone system and for this purpose as recommended by you in your letter No. EL/9958-E.35857 dated 10.3.52. Two-way ~~two~~ telephone sets at Hubli and one Three way Telephone set at Sirsi have been included in the above prices, as also mentioned in the detailed schedule.

Telephone Instruments.

Telephone sets shall be of the desk type and complete with bell and dial. The scheme for marking the dial for the above subscribers may please be communicated.

Cable Connections.

The unit price of Rs. 930/- delivered at site for 100 yards of Co-axial cable is noted when the substation drawing with the location of the Carrier set is finalised you may work out the exact quantity of cable required.

Power Supply.

Power supply will be at 230 Volts Single Phase 50 Cycles at all station-s except Kavalvad where it will be 110 V Single phase 50 Cycles. The Carrier sets should be suitable for operation at the above voltages at the respective stations. Automatic equipment at Sirsi, Kavlayad and Hubli will be for 24 Volts D.C. battery which battery has to be provided for separately. It is also noted that for emergency you have proposed 550 VA M.G. Set at Jog, Dandeli and Hubli 800 VA M.G. Set at Sirsi and 2 1100 V.A. at Kavalvad. D.C. Supply for these sets will be from the 48/110 Volt station batteries which will be arranged for separately.

Spares.

It is noted that each of the Carrier set is provided with a tube checker for routine checking and that one set of spare tubes and fuses are included for each carrier set.

It is understood from the discussions that you consider the above provisions adequate for two year's operation.

Construction and handing over.

The Executive Engineer, Jog-Karnatak Electric Grid Division, Hubli will be in charge of the field work covered by the contract and all matters relating to field work, despatch, delivery completion handing over the plant and payments should be referred to that Officer under intimation to this office.

Acknowledgement of the receipt of this letter and all correspondence on technical matters, prices should however be addressed in duplicate to the Superintending Engineer (Transmission) Bombay Electric Grid, Bombay.

Yours faithfully,

Encl: Schedule
& Drawing.

Chief Engineer.

Copy to Accountant General, Bombay.

31

SCHEDULE A

Jog Karnataka Electric Grid Scheme
Carrier Current Telephones Equipment
on the 110 KV Transmission System

ABSTRACT

(a)	Mahatma Gandhi Power House at Jog	..	..	Rs.	20,000
(b)	Sirai Substation	..	..	..	53,894
(c)	Kavalvad Switching Station	..	..	..	70,865
(d)	Dandoli Substation	..	..	..	25,000
(e)	Hudli Receiving Station	..	..	..	33,879
(f)	V.H.F. Equipment for Repair Gang	..	..	..	30,555
TOTAL					.. 2,02,255

RUPEES TWO LAKHS SIXTY TWO THOUSAND TWO HUNDRED
AND FIFTY FIVE ONLY.

cx/-

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DETAILS OF SCHEDULE "A"

S.No.	Qty.	Items	F.O.R.	F.O.R. Destination + Transportation to site		
			Bombay Rate	Rate Rs.	Per	Amount
1	2	3	4	5	6	7
(a) Mahatma Gandhi Power House at Jag.						
(1)	1	Double wave trap 250A Type TLJO 0.188 mty, for hanging outdoor mounting with copper windings and 1 tuning unit, including: 1 Lightning arrester 1 Set mica condensers 1 coil, for two frequency tuning	1,665	1,715	Each	1,715
(2)	1	Coupling Capacitor suitable for 110 KV, suitable for outdoor mounting on pedestal or hanging. Nominal voltage = 110 KV. Test Voltage = 2-2VA 262 KVA Capacitance = 3800 pF ± 10%	2,181	2,185	"	2,185
(3)	1	Protective Device suitable for outdoor mounting, consisting of 1 lightning arrester type HNF 0.4 q. 1 socket for quick break fuse cartridges 1 Grounding Switch, type ANK, 10 KV, 400 A. All iron parts to be galvanized	704	715	Each	715
(4)	1	Line matching unit, matching the impedance of the aerial cable (125 ohms) to the impedance of the H.T. power line (about 600 ohms), mounted in a hot dip galvanized casing suitable for outdoor mounting	554	554	"	554
(5)	1	Carrier current telephone set suitable for fixed frequency and double side band transmission as per leaflet 2187E and including: 1 Set of spare tubes & fuses 1 Test telephone set. 1 Extra desk set with priority key complete with cabinet with door and lock and one swinging rack suitable for 230 V, 50 cycles single phase supply	13,500	13,500	"	13,500
(6)	1	Subscriber exchange suitable for high frequency transmission including 24V D.C. Supply built into the carrier set	1,902	1,902	"	1,902
(7)	1	Automatic Changeover unit, suitable for use with emergency generating set upto 300 VA output power	767	770	"	770
(8)	1	Emergency Generating Set type GG3JMH 2-2 for the power supply of the high frequency equipments in case of failure of the normal A.C. supply, comprising 1 D.C. Motor for 48 Volts				

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S.No.	Qty	Items.	F.O.R.	F.O.R. Destination + Transport to site.			
			Bombay Rate	Rate	Rs.	Per	Amount
1	2	3	4	5	6	7	8
		D.C. supply					
		1 A.C. Single Phase Generator 230 V, 50 cycles, 550 VA.	1,319	1,330	Each		1,330
(9)	100	Coaxial Cables 100 Yds. (actual quan- Yds. tity required will be intimated Provi- after the layout of the S.S. in fina- sional lised and this will be paid for at the above rates)			100 Yds.		930
(10)		Erection, testing and setting to work L.S.					2,576
		Sub. Total of (a)	..	..	.. Rs.		25,066

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S.No.	Qty.	Items	P.O.R. Destination + Transport to Site.			
			P.O.R. Bombay	Rate	Rate Rs.	Per Amount
1	2	3	4	5	6	7

(b) Signal Substation:

(1)	2	Double Wave trap, 250 A, Type: TLEO, 0.155 MHy. for hanging outdoor mounting with copper windings and 1 tuning unit, including: 1 Lightning Arrester 1 Set of mica condensers 1 Coil for two-frequency tuning		1,688	1,715	Each 3,403
(2)	2	Coupling capacitor suitable for 110 KV, suitable for outdoor mounting on pedestal or hanging Nominal Voltage = 110 KV Test Voltage = 262 KV Capacitance = 3300 pF 10%		2,151	2,165	" 4,326
(3)	2	Protective device suitable for outdoor mounting, consisting of 1 Lightning arrester type HSF 0.44g 1 Socket for quick break fuse cartridges 1 Grounding Switch, type ABH, 10 KV, 400 A. All iron parts to be hot dip galvanized		704	715	" 1,420
(4)	2	Line matching unit, matching the impedance of the coaxial cable (125 ohms) to the impedance of the H.T. power line (about 800 ohms) mounted in a hot dip galvanized casing suitable for outdoor mounting.		546	554	" 1,100
(5)	2	Carrier current telephone set suitable for fixed frequency and double side band transmission as per leaflet 2157E and including: 1 Set of operating tubes 1 Set of spare tubes & fuses 1 Test telephone set complete with cabinet with door and lock and one swinging rack suitable for 230V, 50 cycles, single phase supply		15,130 15,252	15,327	" 30,654
(6)	2	Two-wire group selector special, suitable for high frequency transmission as a connecting link between carrier sets, and a telephone set for 2, 3 or 4 calling directions to be mounted on 7 unit chassis.		3,100	3,146	" 6,246
(7)	1	Three-way telephone set with calling dial, bell and priority key		1,179	1,194	" 1,194
(8)	1	Four-wire connecting set for two directions, suitable for retransmission in an intermediate station of the voice channel connecting the carrier receiver for the incoming direction to the modulator of the outgoing direction to be built into the carrier sets		707	717	" 717
(9)	2	High-pass filter, for 200 cycles, to be built into the carrier set		258	262	" 524

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S.No. : Qty. :		Items	F.O.R. : Bombay	F.O.R. Destination : Transport to site	Rate	Rate in	Per	Amount
1	2	3	4	5	6	7	8	9
(10)	1	Automatic changeover unit suitable for use with emergency generating set upto 800 VA output power			767	778	Each	778
(11)	1	Emergency generating set type QGSJME S-5, for the power supply of the high frequency equipments in case of failure of the normal A.C. supply, comprising 1 D.C. motor of 48 volts approx. D.C. supply 1 A.C. single phase, generator 230 V, 50 cycles, 800 VA.	1,530	1,604			"	1,604
(12)	100	Coaxial cable (actual quantity) Provi- required will be intimated after signal the layout of the substation is finalised and its price will be paid at the above rate)	252	250		100	Yds.	250
(15)		Erection, Testing and setting to work	1.5.					4,808
Sub Total of (b)			..	..	..	Rs.	55,884	

S.No.	Qty.	Items	P.O.R.	P.O.R. Destination		
			Bombay	+ Transport to Site		
			Rate	Rate Rs.	Per	Amount
1	2	3	4	5	6	7

(c) Kavalvad Substation:

(1)	3	Double wave trap R50 A Type TLJO Q.188 suitable for hanging outdoor mounting with copper windings and I tuning unit including 1 lightning arrester 1 Set mica condensers 1 Coil for two-frequency tuning	1,688	1,718	Each	5,130
(2)	3	Coupling capacitor suitable for 110 KV, suitable for outdoor mounting on pedestal or hanging Nominal voltage = 110 KV Test voltage = 262 KV Capacitance = 3200 pF + 10%	2,131	2,163	"	6,489
(3)	3	Protective Device suitable for out- door mounting consisting of 1 Lightning arrester type RHF 0.4q 1 Socket for quick break fuse cart- ridges 1 Grounding Switch, type AHS, 10KV, 400 A All iron parts to be hot dip galvanized	704	715	"	2,145
(4)	3	Line matching unit, matching the impedance of the coaxial cable (125 ohms) to the impedance the H.T. power line (about 800 ohms) mounted in a hot dip galvanized casing sui- table for outdoor mounting	548	554	"	1,642
(5)	3	Carrier current telephone set sui- table for fixed frequency and double side band transmission as per leaflet 2157E and including 1 set of operating tubes 1 set of spare tubes and fuses 1 Effect telephone set complete with cabinet with door and lock and one swinging rack suitable for 110V, 50 cycles, single phase supply	15,130	15,327	"	59,991
(6)	3	Two-wire group selector special sui- table for high frequency transmission as shown a connecting link between carrier sets and a telephone set for 2, 3, or 4 calling directions, to be mounted on 7 unit chassis.	3,100	3,146	"	9,452
(7)	1	Three-way Telephone set with calling dial, bell and priority key	1,179	1,199	"	1,199
(8)	1	Four-wire connecting set for 3 dire- ctions, suitable for retransmission in an intermediate station of the voice channel connecting the carrier receiver for the incoming direction to the modulator of the outgoing direction to be built into the car- rier sets.	1,152	1,151	"	1,151

S.No.	Qty.	Item	F.O.R. Destination			
			F.O.R.	+ Transport to site		
			Bombay			
			Rate	Rate Rs.	Per	Amount
1	2	3	4	5	6	7
(9)	3	High-pass filter, for 200 cycles, to be built into the carrier set	255	202	Rs.	756
(10)	1	Automatic changeover unit suitable for use with emergency generating set about 800 VA till 2000 VA output power	1,028	1,045	"	1,045
(11)	1	Emergency Generating set type GGS-2E, for the power supply of the high-frequency equipments in case of failure of the A.C. supply, comprising: 1 D.C. motor for 48 volts D.C. supply 1 A.C. single phase generator 220 V, 50 cycles 1:1 KVA	1,701			1,701
(12)	100	Coaxial cable (actual quantity required will be intimated after the layout of the substation signal is finalised and its price will be paid at the above rate)	222	220	100 Yds.	220
(13)		Excavation, Testing and Setting to work	L. S.			7,175
Sub. Total of (c)					Rs.	75,825

S.No	Qty.	Items	F.O.R.	For destination and transport to site.	Rate	Per	Amount
					Rs.		Rs.
1	2	3	4	5	6	7	

(d) Dandeli Substation:-

1.	1	Double wave trap 250 A Type WEE 0.188 mhy, for hanging outdoor mounting with copper windings and 1 tuning unit including 1 lightning arrester 1 set of mica condensers 1 coil for two-frequency tuning.	1688	1715	each	1,713
2.		Coupling capacitor suitable for 110 kV, suitable for outdoor mounting on pedestal or hanging. Nominal voltage =110 kV Test voltage =262 kV Capacitance =3200 p.f. +10 %	2131	2163	"	2,163
3.	1	Protective device suitable for outdoor mounting consisting of 1 lightning arrester type WEE 0.4g. 1 socket for quick break fuse cartridges. 1 grounding switch, type ABE, 10 kV, 400 A. All iron parts to be hot dip galvanised.	704	715	"	715
4.	1	Line matching unit, matching the impedance of the coaxial cable (125 ohms) to the impedance of the H.T. power line (about 600 ohms) moun- ted in a hot dip galvanised casing suitable for outdoor mounting.	546	554	"	554
5.	1	Carrier current telephone set suitable for fixed frequency and double side band transmission as per leaflet 2187 E and inclu- ding - 1 set of operating tubes 1 set of spare tubes and fuses 1 test telephone set 1 extra desk set with priority key complete with cabinet with door and lock and one swinging rack suitable for 250 v, 50 cycles, single phase supply.	13366	13566	"	13,566

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1	2	3	4	5	6	7
6.	1	Subscriber exchange suitable for high frequency transmission including 24 v, D.C. supply built into the carrier set.	1902	1932	Each	1,932
7.	1	Automatic changeover unit suitable for use with emergency generating set upto 800 va output power.	767	778	"	778
8.	1	Emergency generating set Type GGSJWE 2-2, for the power supply of the high frequency equipments in case of failure of the normal A.C. supply, comprising 1 D.C. motor for 48 volts D.C. supply. 1 A.C. single phase generator 230 v, 50 cycles, 550 va.	1319	1339	"	1,339
9.	100 yds. (prevision)	Coaxial cable (actual quantity required will be intimated after the layout of the substation is finalised and its price will be paid at the above rate.	930	930	100 yds	930
10.		Erection, testing and setting to work.	L.S.			2,376
		Sub Total of (e).				<u>Rs. 26,066</u>

S.No.	Qty.	Items	P.O.R. : Bombay	For destination and transport to site		
			Rate	Rate Per Rs.	Per Rs.	Amount Rs.
1	2	3	4	5	6	7
		(a) Public Receiving Stations:-				
1.	1	Double wave trap 250 A Type: TMS O.188 mHy, for hang- ing outdoor mounting, with copper windings and 1 tuning unit, including 1 lightning arrester 1 set of mica condensers 1 coil for two-frequency tuning.	1688	1,713	each	1,713
2.	1	Coupling capacitor suitable for 110 kV, suitable for outdoor mounting on pedestal or hanging Nominal voltage =110 kV. Test voltage =262 kV. Capacitance =3200 p.f. + 10%.	2131	2,163		2,163
3.	1	Protective device suitable for outdoor mounting con- sisting of- 1 lightning arrester type MBF 0.4 g. 1 socket for quick break fuse cartridges. 1 grounding switch, type ABE 10 kV, 400 A. All iron parts to be hot dip galvanised.	704	715		715
4.	1	Line matching unit, matching the impedance of the coaxial cable (125 ohms) to the im- pedance of the H.T. power line (about 600 ohms), moun- ted in a hot dip galvanised casing suitable for outdoor mounting.	546	554	*	554
5.	1	Carrier current telephone set suitable for fixed frequency and double side band transmission as per leaflet 2187 E and inclu- ding- 1 set of operating tubes. 1 set of spare tubes and fuses. 1 test telephone set. Complete with cabinet with door and lock and one swinging rack suitable for 230 V, 50 cycles, single phase supply.	13130	13,327	*	13,327
6.	1	Two-wire group selector suitable for high frequen- cy transmission as conne- cting link between the carriers set and a private automatic exchange, to be mounted on 7 unit chassis.	2863	2,906	*	2,906

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1	2	3	4	5	6	7
7.	1.	Private automatic exchange suitable for internal telephone traffic as well as for automatic telephone traffic or the carrier channel with possibility of priority call equipped for 3 connecting sets. 15 subscribers including 5 desk telephone sets out of which 2 to be provided with priority key.	9010	9,146	each	9,146
8.	1	Automatic changeover unit suitable for use with emergency generating set upto 800 va output power.	76	778	"	778
9.	1	Emergency generating set Type GGSJMe 2-2, for the power supply of the high frequency equipments in case of failure of the normal A.C. supply comprising 1 D.C. motor for 48 volts D.C. supply. 1 A.C. single phase generator 230 v, 50 cycles, 550 va.	1319	1,339	"	1,339
10.	2	Two way telephone set with calling dial, bell and priority key (for connecting to Dharwar and Gadag).		947		1,894
11.	100 yds.	Coaxial cable (actual quantity required will be intimated after the layout of the substation is finalised and its price will be paid at the above rate).		930	100 yds.	930
12.		Erection, testing and setting for work.		L.S.		5,364
		Sub Total of (e).			Rs.	<u>38,829</u>

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S.No.	Qty.	Items.	F.O.R.	For destination and transport to site.			Amount
			Bombay	Rate	Rate	Per	
				Rs	Rs		Rs
1	2	3	4	5	6	7	
		(1) Equipment for maintenance and repair work:-					
1.	3	V.H.F. Radio telephone transmitter receiver equipment, stationary type, for Hubli, Kavalvad and Sirsi substations, consisting of 1 transmitter. 1 Receiver 2 Antennas. 1 Power supply relay. 1 control unit. 1 loud speaker. 1 set of R.F. control and supply cables in normal length suitable either for 230 v or 110 v, 50 cycles, single phase supply.	6270	Xash	Xash		18,810
2.	3	V.H.F. transportable transmitter equipment suitable for use in motor lorries, consisting of 1 transmitter 1 receiver 1 antenna 1 frequency deviating network 1 control unit 1 loud speaker 1 set of R.F. control and supply cables in normal length suitable for operation from a 12 v, D.C. supply.	4840		Each		14,520 ~~1,55,200~~
3.	3	Accessories for items (1) and (2) above.	1735		Each		5,205
		Sub Total for (x).					<u>38,535</u>

VERY URGENT

No. T8/C-19/
Electric Grid Offices,
Maritime Bank Building,
Fort, Bombay 1: March 1952

From

The Chief Engineer,
Bombay Electric Grid,
Bombay.

To

Messrs. Protos Engineering Co. Ltd.,
Bombay 1.

Subject: JOG KARNATAK GRID SCHEME -
Communication System -
High Tension Protected Telephone
Equipment.

Reference: Your tender No. Ref. 102/30180/C,
dated 7-1-1952.

Your letter Nos. -

102/33210/C, dated 29-2-1952.

102/33353/C, dated 3-3-1952.

102/33468/C, dated 5-3-1952.

102/33616/C, dated 10-3-1952.

102/34121/C, dated 15-3-1952.

Dear Sirs,

With reference to the above and the various discussions your representatives had with our Shri R.P. Desai, Superintending Engineer (Transmission), I accept your tender for the supply and erection of the high tension protection telephone equipment for the 33 kV and 11 kV systems of Jog Karnatak Electric Grid Scheme, subject to the terms and conditions given hereunder :-

(a) Supply, distribution to site, erection testing and setting to work of the high tension protected telephone equipment, ^{for the 33 kV and 11 kV systems} as per details mentioned in the schedule of equipment. The prices, delivery periods etc., as accepted are indicated below :-

Abstract Schedule of prices and delivery periods.--

(1)	Birsi ..	Rs. 7,785	Delivery in 4-6
(2)	Dandoli ..	5,693	months except
(3)	Hubli ..	4,191	portable telephone
(4)	Gadag ..	7,955	equipment for which
(5)	Dharwar ..	2,269	delivery will be
(6)	Hanagal ...	2,269	8-10 months.
(7)	Harihar ..	2,661	Erection 8-10 days
(8)	Hanibennur..	2,894	per station.
(9)	Byadgi ..	2,661	
(10)	Haveri ..	2,269	
(11)	Annigari (Lineman's camp) ..	2,269	
(12)	Portable lineman equipment	18,050	
(13)	Spares ..	6,863	

Total Rs. 67,829

(Rupees sixtyseven thousand eight hundred and
twenty nine only).

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(2) Coordination with the contractors -

The order for the substation equipment has been placed with Messrs. International General Electric Co., Bombay, and the order for the carrier telephone system for the 110 kV system has been placed with Messrs. Volkarts. The agency for carrying out the telephone line construction and the 11 kV and 33 kV power line is yet to be decided and this when decided will be intimated to you. You should work in collaboration with them for coordinating the works relating to the high tension protected telephone equipment. The layout of the substation will be forwarded to you in due course.

(3) General Conditions of Contract and Terms of Payment --

The departmental General Conditions of Contract included in the specifications will hold good in all respects except for the following. -

I note that you require the following terms of payment. -

1. 10% advance with order,
2. 20% when Import Licence is granted.
3. 20% 4 months after placing the order.
4. 20% when goods are ready for shipment.
5. 10% against R. R.
6. 15% after erection and handing over, but not later than 6 months after payment under 5 falls due.
7. 5% 6 months after payment under 6 falls due, but not later than 12 months after payment under 5 falls due.

These are provisionally accepted subject to the approval of Government, which will be communicated to you in due course.

Prices. --

It is noted from your letter No. 102/34121/C, dated 15-3-1952, that the prices quoted in your tender are firm and that you have waived the price variation and clause relating to cost of material and labour.

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I note that the prices are based on the present rates for marine insurance and conference rates for sea freight and that the rates are based on --

(a) present rate of customs duty of 31.5 % for telephone equipment.

(b) Present rates of exchange of Rs.1 : Sh. 1/6, and £ 1 : DM. 11.76:

(4) Completeness of the Contract --

I note that the above prices do not include the bare overhead telephone wires terminated outside the station building which will be provided by the Department. From then onwards, all the wiring materials, brackets, earthing material, wall bushings, hooks, clamps, brackets, etc., are included in the above prices. All the minor accessories that are necessary for the satisfactory and efficient operation of the plant should be supplied by you free of charge whether specifically mentioned or not by you in your schedules.

(5) Erection --

I note that the erection costs quoted by you include the services of a European erector. The department will arrange for sufficient skilled and unskilled labour at each place of installation. It is noted that two fitters and four coolies will be sufficient for the purpose.

Wherever it will not be possible for you to arrange clearing transport to site etc., the department will assist you in clearing the materials from the Railway station, transport same to site and store them at site. The actual charges incurred in this respect will be debited to you as agreed to by you.

I also note that the cost of erection includes conveyance for your European Erector from the Railway station in the near vicinity of the equipment. Where no Railway station is available in the direct vicinity of

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the location of the equipment, conveyance is to be provided by us free of cost to your Chief Erector.

It is noted that you will insure all the materials covered by the contract upto arrival at site and for a period of 30 days thereafter, against all risks including breakage. If insurance risks are to be covered for a further period, you will negotiate on our behalf and for the risks to be specified by us. This will be charged to us at actuals. Erection insurance will, however, be covered by you at your expense. All the Insurance for the equipment should be effected with the Indian Insurance ^{Companies} Association pool.

(6) Electricity Rules --

All works shall be carried out in accordance with the Indian Electricity Act unless modified by this department.

(7) Delivery and penalty for delay --

It is noted that the delivery period is 4-6 months ex-works and this is to be reckoned from the date of receipt of the import licence. If you fail in the performance of the contract within this time limit, you accept a penalty at the rate of 2 percent per week of the contract price reckoned on the contract value for such portion of the equipment which cannot be used commercially and efficiently and that penalty should be subject to a maximum of 5 % of the contract value of such portion of the equipment.

The application for import licence may be forwarded in quadruplicate for forwarding to the Central Water & Power Commission, Jinnah, if the special import licence is necessary.

Contract Drawings --

Three copies of the detailed drawings of the various equipments for each station shall be supplied within ten weeks of the receipt of order for approval.

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Three sets of final drawings and one set in ink on cloth and the other two sets ferrograph prints shall be supplied together with a tracing in ink on cloth.

(8) Tests --

The manufacture and testing of this equipment are subject to inspection by this department's representative or by the officers of the Director General, India Stores Department, on behalf of this department. In case the latter is decided upon, all facilities to enable the agents for inspecting the manufacture and test shall be afforded to them. You would be informed in due course when the equipment will be so inspected.

Test certificates shall be forwarded in duplicate and no payment should normally be made until the test certificates are approved.

(9) Contract document --

A formal agreement will be entered into for which documents will be forwarded to you in due course.

(10) Progress reports --

The contractor should furnish monthly three copies of programme of work and the progress report of the manufacture.

(11) Transport --

It is the responsibility of the contractor to inform himself fully of the transport condition by rail and road and arrange for the size and weight of the heaviest package accordingly.

Shipment --

The materials have to be shipped preferably in Indian ships if that does not involve any delays. You should enquire of the availability of Indian shipping well before each shipment becomes ready and ship by non-Indian ships only if the delay in waiting is likely to result in demurrage storage charges, subject to liability for payment of such charges, the goods must be shipped by Indian ships.

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(b) Technical --

Your offer of Messrs. Siemens Halske manufacture H.T. protected telephone equipment is accepted.

H.T. protected telephone equipment is for telephone lines run on the same poles as 33 kV and 11 kV H.T. lines with approved clearances. For the equipment involved, the neutrals of the H.T. system are solidly grounded. The telephone conductors are transposed and the H.T. conductors of 33 kV only are proposed to be transposed, whereas for the 11 kV power conductors, transposition is not proposed to be adopted unless you consider necessary for efficient operation of your telephone equipment. For telephone conductors, No. 6 Crapo galvanised wire is proposed to be adopted.

H. T. protected telephone equipment --

I note that you have included in the equipment, H.T. protected transformers insulated between windings for 10 kV which you consider adequate for the fixed stations of 33 kV and 11 kV systems and that only for the mobile equipment, 30 kV H.T. protection transformer insulated for 30 kV is required. It is also noted that only high ohmic protection transformers will be used in these cases. Further you have stated that only where the H.T. line exceeds H.T. of 20 kV or a telephone ^{line} wire is over 10 miles long, the drainage coil is necessary. Accordingly, no drainage coils are provided at both ends of the lines for the 11 kV H.T. consumers at Sirai, Dandeli and Gadag since the distance will not be more than 2-3 miles. For other main stations, drainage coils as included by you are provided.

Tropical design --

I note that the equipment offered are specially suited to withstand the tropical conditions existing at the place of installation.

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Installation --

The department will provide the bare overhead telephone wires terminated outside the station building. I note that all the wiring materials (brackets etc.) will be provided for by you and are included in the above prices.

Magneto telephones set --

Your offer of the manually operated wall telephone is accepted. It is understood that the cost of these sets is inclusive of the cost of one set of dry cells required for its operation.

Telephone equipment at Sirsi and Hubli --

At the above two substations, there will be both the M.T. protection type to be installed by you and the carrier current equipment to be installed by Messrs. Volkart Brothers, but the following combination is proposed to be adopted.

As far as dialling is concerned, M.T. protected and the automatic carrier current will be treated as entirely independent systems, but as far as the telephones communication is concerned, the M.T. protected telephone subscribers at Hanagal, Gadag or Dharwar will be connected to any of the subscribers of the Automatic carrier current system. For this purpose, one three way telephone set ^{at Sirsi} and two two way telephone sets at Hubli will be provided by Messrs. Volkarts which will be connected to the M.T. protected system, as indicated in the sketch enclosed. Please confirm that the above arrangement will be satisfactory in respect of the M.T. equipment to be supplied by you.

Spare and Maintenance --

The revised spare parts as recommended in your letter dated 10-3-1952 which you consider adequate for two years maintenance is accepted.

Construction and Handing over --

The Executive Engineer, Jod Karnatak Electric

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Grid Division, Hubli, will be in charge of this field work covered in this contract. All matters dealing with field work, despatch, delivery, completion and handing over of the plant and payments, should be referred to that officer under intimation to this office.

Acknowledgment of the receipt of this letter and all correspondence on technical matters, prices should, however, be addressed to the Superintending Engineer (Transmission), Electric Grid Office, Mercantile Bank Building, Bombay 1.

Yours faithfully,

Chief Engineer.

Encl: Schedule and drawing.

k.27.3.52.

Copy to the Accountant General, Bombay.

Copy to (1) the Accounts Officer.

(2) the Executive Engineer (Civil),
Electric Grid Division, Hubli (2 copies).

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Installation --

The department will provide the bare overhead telephone wires terminated outside the station building. I note that all the wiring materials (brackets etc.) will be provided for by you and are included in the above prices.

Magneto telephone set --

Your offer of the manually operated wall telephone is accepted. It is understood that the cost of these sets is inclusive of the cost of one set of dry cells required for its operation.

Telephone equipment at Siral and Hubli --

At the above two substations, there will be both the H.T. protection type to be installed by you and the carrier current equipment to be installed by Messrs. Volkart Brothers, but the following combination is proposed to be adopted.

As far as dialling is concerned, H.T. protected and the automatic carrier current will be treated as entirely independent systems, but as far as the telephone communication is concerned, the H.T. protected telephone subscribers at Hanagal, Gadag or Dharwar will be connected to any of the subscribers of the Automatic carrier current system. For this purpose, one three way telephone set ^{at Siral} and two two way telephone sets at Hubli will be provided by Messrs. Volkarts which will be connected to the H.T. protected system, as indicated in the sketch enclosed. Please confirm that the above arrangement will be satisfactory in respect of the H.T. equipment to be supplied by you.

Spare and Maintenance --

The revised spare parts as recommended in your letter dated 10-3-1952 which you consider adequate for two years maintenance is accepted.

Construction and Handing over --

The Executive Engineer, Jog Karnatak Electricity

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**Abstract of Prices for P.T. Protected Telephone
equipment for 20 KV and 11 KV system
Jog Karnatak Scheme.**

Sl. No.	STATION.	Amount
(a)	Birsi ⁶⁵⁷	7788
(b)	Dandali ⁶⁵⁷	3033
(c)	Halli ⁶⁵⁷	4191
(d)	Gadag ⁶⁷¹	7355
(e)	Harwar ⁶⁷³	2180
(f)	Hanagal ⁶⁷³	2200
(g)	Harwar ⁶⁷³	2601
(h)	Harwar ⁶⁷⁹	2294
(i)	Harwar ⁶⁸¹	2061
(j)	Harwar ⁶⁸³	2350
(k)	Harwar ⁶⁸⁵	2200
Total		42916
(l)	Linsman's equipment ⁶⁸⁷	15030
(m)	Spare ⁶⁸⁷	6263
Total Rs.		67809/-

Rs. Sixtyseven thousand and eight
hundred and twenty nine only.

SCHEDULE 2.

Details of H.T. Protected Telephone Equipment for 30 KV & 11 KV system of Jap-Farmstead Electric Grid. -----

No.	Qty.	Item	H.V. KV.		Distribution location and setting	
			Rate	Amount	to work	Amount
			per unit			
			Station			

(a) Grid Stations:-

- (1) (2) H.T. protected telephone equipment on wall mounting bracket, ready wired, fitted with
1. Coarse protection device with double pole dis- connecting switch with coarse lightning arrester, breakdown voltage 3 KV. 6 ft.

1. Fuse unit comprising -

- 2 silver fuses 3 amps,
- 1 Histo gap arrester 600 V D.C.
- 1 Vacuum arrester 600 V D.C.

- 2 H.T. protection transformer insulated for 10 KV between windings, ratio 1:1, high class type with an autoconnection of 0.2 H

1. L.T. fuse unit comprising-

- 2 coarse / fine fuses 0.7/0.8 A
- 2 Vacuum arresters for 600 V D.C.
- Necessary sockets etc.

type Y Cost Rs. 91 Rs 1305/1-0

S. No.	Qty.	Item.	Delivery.		Distribution erection and setting to work.	
			Rate P.O.D.	Amount	Rate.	Am. amt.
			Thrust Fly.			
			Station.			

- (2) 1 Drainers coil with supports for all mounting, insulated for 12 kv.

Dimensions : 83 H @ 20 cycles / 100 V
14 H @ 800 cycles / 100 V

Available for a continuous current flow of 3 Amps.

Type JAG12 List No. 902045

680

680

130

130

- (3) 3 Bell telephone for magnetic call in proposed material casing, with powerful inductor, hand micro-phone, connecting cords and recepts.

Type 12 k 54 S 3013/1

140

420

30

90

- (4) 1 Alarm bell

15

15

3

3

- (5) 1 Double pole changeover switch for the alarm bell.

15

15

3

3

- (6) 10 Porcelain wall bushing insulator for carrying through bare wires.

13

130

3

30

- (7) 3 Switching rod head.

7

21

-

-

6475

1308

Total Rs. 7785.

73

Q.No.	Qty.	Item	Delivery				Distribution erection and	
			Date	U.D.	Amount	Rate	Setting to work	Account
			chequent	11/11				
			Station,					

(b) Danfelli Sub-Station:-

- (1) 1 T.S. protected telephone equipment same as for Cirai 5/3 under item No. (1)
- (2) 1 Bell telephone for magnetto call same as for Cirai 5/3 under item No. (3)
- (3) 1 Alarm Bell.
- (4) 1 Double pole changeover switch same as for Cirai 5/3 under item No. (5)
- (5) 1 Porcelain wall bushing insulator same as for Cirai 5/3 under item No. (6)
- (6) 3 Switching Rod Head.

1040	4150	1200	840
1040	430	30	90
15	15	3	3
13	13	3	3
13	104	3	24
7	21	-	-
4783			860

Total Rs. 5593/-

77

Q.No.	Qty.	Item	Material from erection and addition to work			
			Material	Delivery	Material	Account
			Q.No.	Q.No.	Q.No.	Account
			Material	Material	Material	Material

(4) Same Observations-

(1)	3	1.5. Protected telephone equipment case as for Class 2/3 under item (1)	1240	210	1050	
(2)	1	Drainage cell, same as for Class 2/3 - 1st item (2)	850	130	130	
(3)	4	Full telephone for magneto call, same as for Class 2/3 under item (3)	240	30	120	
(4)	1	Alarm Bell	15	3	3	3
(5)	1	Double pole changeover switch, same as for Class 2/3 under item (5)	13	3	3	3
(6)	10	Porcelain wall bracketing insulator, same as for Class 2/3 under item (6)	13	3	30	
(7)	3	Switching Rod Head	7	21		
					609	1236
					Total Rs. 7053/-	

81

Q.No.	Qty.	Item.	Estimation, execution and delivery.			
			Rate P.C.C.	Amount	Rate P.C.C.	Amount
			Station			
(c) <u>Various Sub-Stations</u>						
(1)	1	H.T. protected telephone equipment same as for Cirai B/S under item (1)	1040	1040	210	210
(2)	1	Drumhead coil, same as for Cirai 1/S under item (2)	600	600	120	120
(3)	1	Wall telephone for magnetto call, same as for Cirai 1/S under item (3)	140	140	30	30
(4)	2	Porcelain wall hanging insulator same as for Cirai 1/S items (4)	13	26	3	6
(5)	1	Switching Rod Head.	7	7	-	-
				<u>1983</u>		<u>396</u>
			Total Rs. 2200.			

83

Q. No.	Qty.	Item	Distribution section and			
			Station	Request by	Station	Amount

(C) Foreign Substitution

- (1) 1 U.S. protected telephone equipment same as for Biral 3/2 Item (1)
- (2) 1 Recharge cell same as for Biral 3/2 Item (2)
- (3) 1 Bell telephone for magnetic call, same as for Biral 3/2, Item (3)
- (4) 2 Powerline wall breaking insulator same as for Biral 3/2 Item (6)
- (5) 1 Switching Rod Head.

1040	1040	220	220
630	630	130	130
140	140	30	30
13	36	3	6
7	7	-	-
		1833	378

Total 2,283.

Qty.	Item	Inventory	Distribution method
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1

(c) Summary of Distribution

(1)	2	1200	1200	1200	1200
(2)	2	1200	1200	1200	1200
(3)	3	140	140	140	140
(4)	4	12	12	12	12
(5)	1	2	2	2	2
					87

Total 12, 140, 12, 12, 2

Q.No.	Qty.	Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	12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[illegible]

No.	Qty.	Item	Unit Price	Total Price	Distribution Section	Remarks
(1)	1	100% Protected telephone equipment same as for Ciral E/L item (1)	270	270		
(2)	1	Exchange cell same as for Ciral 9/3 item (2)	130	130		
(3)	1	All telephones for exchange cell same as for Ciral 7 item (3)	30	30		
(4)	1	Exchange cell switching initiator same as for Ciral 6 item (6)	0	0		
(5)	1	Switching and cord.	-	-		
			<u>570</u>	<u>570</u>		

Qty.	Item.	Unit Price	Material, Extension
1		1000	1000
1		1000	1000
1		1000	1000
1		1000	1000

(A) Amalgam Lineman Equip.

- (1) 1 1/2" protected telephone equipment same as for line 1/2" item (1)
- (2) 1 1/2" telephone bell same as for line 1/2" item (2)
- (3) 1 1/2" telephone for emergency call, same as for line 1/2" item (3)
- (4) 2 1/2" telephone bell working indicator same as for line 1/2" item (4)
- (5) 1 1/2" cutting tool item.

1000	1000	1000	1000
1000	1000	1000	1000
1000	1000	1000	1000
1000	1000	1000	1000
1000	1000	1000	1000

95

Total 1000

Qty.	Item	Qty.	Unit	Particulars	Remarks

(1) 10 (2) 10 (3) 10

Mobile High Pressure Projector in use - 1000 lbs. in total weight, consisting of:-

- 1 - 1000 lbs. Projector
- 2 - 1000 lbs. Projector
- 1 - 1000 lbs. Projector
- 2 - 1000 lbs. Projector
- 1 - 1000 lbs. Projector

Type 1000 lbs.

together with

1 - Portable Magneto Telephone in use - 1000 lbs. with hand operated motor, built-in bell, carbons and connecting terminals.

Type 1000 lbs. 1000 lbs. 1000 lbs.

Q.No.	Item	Qty	Unit	Particulars, description and
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
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(a) General

- (1) 10 sets, 10 parts each, each fitted with -
 - 1 - Coarse lightning arrester for 3 KVolt.
 - 2 - Plate gap arrester for 650 V D.C.
 - 3 - 11KV surge type.
 - 4 - Coarse / fine surge 0.7/1.2 Amps.
 - 5 - Vacuum arrester 600 V D.C.
 - 6 - Vacuum arrester 650 V D.C.

Type of test 2 in 20
List No. 000006

- (2) 22
 22 sets of spare fuses each containing 22 spare fuses with connections Type 2 rich 10 fms
 List No. 000007

- (3) 120
 120 discs for plate gap arrester
 Type 2 rich 127
 List No. 000008

No.	Qty.	Item	Delivery	Amount	Date	Distribution or other
(4)	1	C.C. Protection Transformer insulated for 10 kv, with 211, 5125 chds with an attenuation of 0.2 db	415	415	-	-
(5)	1	C.C. Protection Transformer insulated for 20 kv, with 4125 chds (for 20 kv) (att. 0.2 db)	415	415	-	-
(6)	2	Transformer 20 kv for 10 kv (2)	415	415	-	-
(7)	2	Transformer 20 kv for 10 kv (2)	415	415	-	-
				415		

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Our General Conditions of Vcontract.

1. Definition of terms.
2. Contractor to inform himself fully.
3. Contract.
4. Contract drawings.
5. Mistakes in drawings.
6. Subletting of contract.
7. Patent rights.
8. Workmanship and materials.
9. Packing.

The Contractor shall at his own cost provide for securing and packing the plant so as to avoid damage in transit under proper conditions and he shall be responsible for all loss or damage caused or occasioned by any defect in packing.

All plant shall be packed in accordance with the specifications enclosed. Packing or shipping methods not in accordance with these specifications must be approved by the Engineer before shipment is made. All bright parts shall be thoroughly protected against rust during transit. The purchaser will take no responsibility for any damage done to the plant enroute to the "Site of works" "place of delivery" whichever may be specified.

10. Delivery.

The contractor shall include in the total of his tender the cost of delivering the whole of the plant and our General Conditions of Contract material I.O.C. at the nearest railway station in India or on the site and shall include all import duty and customs dues.

11. Fencing and Lighting.

12. Power to Vary or omit work.

13. Negligence.

If the contractor shall neglect to execute the work with the diligence and expedition or shall refuse or neglect to comply with any reasonable orders given him in writing in writing by the Engineer in connection with the work or shall contravene the provisions of the contract the purchaser may give seven day's notice in writing to the contractor, to make good the neglect or contravention complained of and should the contractor fail to comply with the notice within a reasonable time from the date of service thereof in the case of a failure, neglect or contravention capable of being made good within that time or of making good within such time as may be reasonably necessary for making good then and in such case the purchaser shall be at liberty to employ other workmen and forthwith perform such work as the contractor has neglected to do or if the purchaser shall think fit, it shall be lawful for him to take the work wholly, or in part, out of the contractor's hands and re-contract at a reasonable price with any other person or persons or provide any other materials, tools, tackle or labour for the purpose of completing the work or a part thereof and in that event the purchaser shall without being liable to the contractor for fair wear and tear of the same have free use of all the materials tools, tackle construction plant and other things which may be on the site for use at any time in connection with the work to the exclusion of any right of the contractor over the same and the purchaser shall be entitled to retain

1 Carrier current telephone equipment.

I/s. Volkart's Bros Amendments.

- No comments.
- No comments.
- Accepted.
- Accepted.
- Accepted.
- Accepted.
- Accepted.
- No comments.

The materials will be packed in cases suitable for sea transport according to our principal's standard practice. Generally these cases stand the handling they are exposed to under proper conditions, and the material arrives at site in good condition. It should however be noted that we shall not be responsible if at any time during despatch or erection certain risks are not insurable. Our responsibility goes only as far as liability for the loss or damage is covered by the respective insurance policy.

In the schedules we have indicated prices for material packed ex. works in Swiss francs, C.I.F. Bombay, pounds sterling and F.O.B. Bombay in rupees.

- No comments.
- Accepted.

Accepted however on the strict understanding that any action taken by the purchaser under this agreement and that any financial or other claim resulting of such an action from the purchaser shall be subject to arbitration under para 38.

17
Our General Conditions of Contract.

Any balance which may be due otherwise due on the contract contractor or such part thereof as may be necessary to the payment of executing such work as aforesaid.

If the cost of executing the work as aforesaid shall exceed the balance due to the contractor and the contractor fails to make good the deficit, the said materials, tools, tackle, construction plant and the property of the contractor may be sold by the purchaser and the proceeds applied towards the payment of such difference and the cost of such sale. Any outstanding balance existing after crediting of such sale shall be paid by the contractor on the certificate of the Engineer but when all expenses, costs and charges incurred in the execution of the work are paid by the contractor, the contractor shall be at liberty to remove all such materials, tools, tackle, construction plant or other things unsold and the same shall be removed by the contractor from the premises.

Death, bankruptcy, etc.

5. Inspection and Testing.

The Engineer, and his duly authorized representative, shall have reasonable times access to the contractor's premises or works, and the power at all reasonable times to inspect and examine the workmanship of the plant during its manufacture or erection and the plant is being manufactured or erected on the premises. The contractor shall obtain for the Engineer and for his duly authorized representative to inspect as if the plant or materials were manufactured on the contractor's own premises or works.

The Engineer shall on giving seven days' notice in writing setting out any grounds of objection which he may have in respect of any materials or any materials, plant or works, shall have a right of access to the said grounds of objection in his opinion are defective or are in his opinion defective for any reason. If the contractor be not satisfied with the contractor's opinion, he may after giving notice in writing to the contractor within seven days of the date on which the contractor shall be notified of the Engineer's objection, shall be entitled to refer the matter to the Engineer on such grounds. Unless specifically provided, all tests shall be made at the contractor's works before shipment.

The contractor shall give the Engineer notice of any material for testing and the Engineer or his duly authorized representative shall have access to the works or premises of the contractor for the purpose of testing the materials or works within seven days of the date on which the contractor shall be notified as being ready, failing which visit the contractor may make the tests which shall be deemed to have been made in the presence of the Engineer. The contractor shall forward to the Engineer duly certified, signed and sealed copies of the test results.

Tests at Contractor's Premises

In all cases where the contract provides for tests of the materials or works of the contractor, the tests shall be made at the contractor's premises or works, unless otherwise specified. The contractor shall be responsible for the provision of all facilities, such as labor, materials, electricity, fuel, water, and instruments as may reasonably be demanded to carry out efficiently the tests in accordance with the contract and shall provide facilities for the Engineer or to his authorized representative to accomplish such tests.

If special tests other than those specified in the contract are required, they shall be paid for by the purchaser as variations under Clause 10.

When the tests have been satisfactorily completed at the contractor's premises or works, the Engineer shall issue a certificate of acceptance, and no plant shall be shipped before such certificate has been issued. The satisfactory completion of these tests, or the receipt of the certificate, shall not bind the purchaser to accept the plant or to pay for it on further tests after erection be found not to be satisfactory.

M/s. Volkart's Amendments.

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No comments.

Accepted, however, with the following additions.

For access at Maker's works, the Engineer shall preferably give notice of such visits and the latter can only take place during normal working hours, whichever the latter may be at our or Maker's works. Sub para 2 vi shall be replaced by- "The Engineer shall, on giving 21 day's notice in writing to the contractor, settling out any ground of objection which he may have in respect of the work, be at liberty to reject all or part of the plant or workmanship which are not in accordance with the contract or are defective if

(a) all or part of the plant or workmanship is not capable of giving the commercial service which it should reasonably give, or if

(b) it involves any serious operational risk

rejection of all or part of the plant or workman- ship will further only be acceptable if the contractor has been given reasonable opportunity of making good and if he has failed to do so."

"The remaining of the sub para - viz.,
" provided that if such notice be not sent
before shipment" is accepted.

Tests at contractor's premises.

Accepted however with the proviso that the Engineer shall issue a certificate forthwith, in order to avoid any delay in shipment. In the absence of any such certificate due to reasons beyond our or manufacturer's control shipment will be effected as if a certificate had been issued by the engineer.

Accepted.

cont.....

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-3-

Our General Conditions of Contract.

16. Delivery of materials.

No plant or materials shall be forwarded until shipping instructions shall have been given to the Contractor.

17. A. Access to site and work on site.

17. B. Materials brought on to the site.

All materials, tools and tackle brought to and deposited on the site for the purpose of the work shall from the time being so brought shall be deemed to be in the possession of the Purchaser as if attached to the land on which they are to be used for the purpose of the work but for that purpose not on any other account be removed or taken away by the Contractor or any other person without the express permission in writing of the Engineer, but the contractor shall nevertheless be solely responsible for any loss or destruction thereof or damage less resulting from causes beyond the contractor's control. Insurance against destruction or damage from which is provided in clause 11. The purchaser shall have a lien on such materials, tools and tackle for any sum or sums which may at any time prior to the completion of the works be due from or owing to him by the contractor, in respect of or by reason of the contract, and shall be at liberty to use any of such materials, tools and tackle in the completion of the works in such manner as he shall think fit and the proceeds in or towards the satisfaction of such debt or owing as aforesaid but subject to such lien and power of disposal, such materials, tools and tackle shall remain the property of the contractor and may be removed and disposed of by him as he thinks fit.

18. Engineer's supervision.

19. Engineer's decisions.

20. Contractor's representatives and workmen.

21. Liability for accidents and damage.

In the case of "delivery" contract the contractor shall be solely responsible for all loss, damage or depreciation to the plant has been delivered at the place of delivery as provided in clause 10.

The contractor shall not be responsible unless otherwise provided for loss, damage or depreciation to goods other than the plant by fire, theft or insecure packing beyond the "place of delivery" in clause 10 nor shall he be under any obligation to give statutory or other that he accepts no responsibility.

In the case of delivery contract where erection is carried out by the contractor the latter shall be responsible for loss, damage or depreciation to the plant until the plant is taken over in accordance with clause 25 except when such loss, damage or depreciation has occurred during the transport of the plant from the place of delivery to site arising from any cause other than fault or insecure packing.

In the case of complete erection contract the contractor shall be entirely responsible for all loss, damage or depreciation to the plant until the plant is "taken over" in accordance with clause 25.

The contractor shall during the progress of the work keep up and protect the plant from injury by exposure to the weather.

M/s. Vollart's Agent.

Instructions

Accepted with the proviso that should the giving of shipping instructions by the purchaser be delayed for reasons beyond control of the contractor or/or manufacturer the material will be shipped to the best of our knowledge, or alternatively any storage charges resulting from the delay will be paid by the purchaser.

Accepted.

Accepted except for: any materials implements, tackles tools which the contractor requires for the erection of the materials and which have not been specified as belonging to the extent of the contract such as special lifting tackle, erector's tool box with contents, special tools that may be required during the course of erection etc. etc.

Accepted.

Accepted.

Accepted.

This paragraph is acceptable to us only as far as our liability can be covered by the Insurance Company and provided the cost of insuring the plant whether in transit or at site is borne by you.

According to our Insurance Department's recommendations, the insurance of the plant and its erection should preferably be split into two parts, the first for delivery of the equipment and shall the second for the erection, setting to work and commissioning of the equipment. It is felt that the second part should preferably be settled after the order has been accepted and the delivery periods have been confirmed, hence the probable date of beginning and duration of the erection will be known. We have given at the end of this part a note on the risks that can be covered by an Insurance Policy for your information. We respectively our Insurance Department shall be very glad to go into further details if the order is placed with us.

As far as the insurance for delivery of the equipment is concerned the following clause would have to apply:

"The contractor shall attend to transport and insurance as the purchaser's agent and at the purchaser's risk at cost. Should the goods or part thereof be lost for any cause whatsoever the contract shall be deemed to have been fulfilled for the lost part and any further order for replacement shall constitute a

cont.

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Our General Conditions of Contract:

take every reasonable proper timely and useful precaution against injury to the same from any cause and shall be and remain answerable for all accidents or injuries thereto which until the same be or to be taken over under clause 35 may arise or be occasioned by omissions of the contractor or his workmen or sub-contractors and damages to the plant arising from such accidents or injuries said shall be made good in the most complete and substantial manner at the sole cost of the contractor and to the reasonable satisfaction of the Engineer.

In the case of loss or damage to any portion of the plant on the site arising from or occasioned by other causes the same required by the purchaser be made good by the contractor in like manner at the cost of the purchaser at a price to be agreed between the contractor and the purchaser or in default of agreement settled by arbitration clause 38 hereof and the purchaser shall pay to the contractor the value of the portion of the plant so lost or damaged or any part of the contract value remaining unpaid as the case may be.

Until the plant shall be or be deemed to be taken over as the contractor shall also be liable for and shall be deemed to be the purchaser in respect of all damage or injury to any person or property of the purchaser or of others occasioned by the negligence of the contractor or his workmen or sub-contractors or by defective design or material but not otherwise.

Provided that the contractor shall not be liable under this clause for any loss of profit or loss of contracts or any claims made by the purchaser not already provided for in the contract nor for any damage caused by or arising from the acts of the purchaser or of others (damage by fire as hereinafter provided) due to circumstances over which the contractor shall have no control.

The contractor shall indemnify and save harmless the purchaser from all actions, suits, claims, demands, costs or expenses arising from or in connection with injuries suffered prior to the date when the plant shall have been taken over under clause 35 herein by persons employed by the contractor or his workmen whether under the general law or under the Workmen's Compensation Act or other statute in force at the date of the contract dealing with the liability of employer for injuries suffered by employees and shall properly to insure against any claims thereunder.

On the occurrence of an accident which results in the death of any workman employed by the contractor or which is so serious as to require the payment of such accident gratuity in writing to the concerned Electric Grid Department from the fact of such accident. The contractor shall indemnify the Government against all loss or damage sustained by the Government directly or indirectly from his failure to give intimation from the contractor as aforesaid including the penalties or fines if any payable by the Government in consequence of Government's failure to give notice under the Workmen's Compensation Act or otherwise to conform to the provision of the said Act in regard to such accident.

In the event of any claim being made, or action brought against the contractor involving the contractor and arising out of the matters referred to in this clause which the contractor is liable under this clause the contractor shall be notified thereof and he shall with the assistance if he so require but at the sole expense of the contractor conduct all negotiations of the same or of any litigation that may arise therefrom. In such case the contractor shall at the expense of the contractor afford all available assistance for the purpose.

In the event of an accident in respect of which compensation is payable under Workmen's Compensation Act VIII of 1923, whether by the Government or otherwise it shall be lawful for the Engineer to deduct from the sum due and payable to the contractor such sum or sums of money as may be determined by the Engineer to be sufficient to meet such liability. The decision of the Engineer shall be final in regard to all matters arising under this clause.

M/s. Volkart's Amendments.

... a fresh contract. The remaining part of the contract, covering goods not so lost shall remain intact and shall hold good.

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... the

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of inter-
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the ...

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A letter dated 9-10-72
from [redacted]
[redacted] under
secretariat in the
Department of Labor, or any
other division of the
Department of Labor

[illegible]

purchase;
effect of
immediately
purchaser
settlement
purchaser
any such

ion may become payable
tractor or by the
state out of moneys
available in the opinion
of the Governor shall

cont.....

133

-5

Our General Conditions of Contract.

22. Insurance.

23. Replacement of Defective Works or Materials.

If during the progress of the work the Engineer shall in writing to the contractor that the contractor has executed imperfect work, or has supplied any plant or materials in a quantity to those specified the contractor on receiving such notification shall at his own expense within seven days of his notice or otherwise within such time as may be reasonably necessary proceed to alter, or supply in case of removal of such materials upto the satisfaction and in case the purchaser may on giving the contractor in writing of his intention so to do proceed to remove the same as explained of and at the cost of the contractor perform all such such materials provided that nothing in this clause shall be purchaser of or affect any rights under the contract which in respect of such defects or deficiencies. No payment which may be made of the plant or materials delivered or work executed shall be a guarantee of such or any plant, materials or work.

24. Deductions from Contract price.

The amount of all costs, damages or expenses or other charges under the contract shall be payable by the contractor to the purchaser from any moneys due or becoming due by him to the purchaser without prejudice to the purchaser's right to recover the same by process of law.

25. Terms of payment.

Subject to any deduction which the purchaser may be entitled to under the contract the contractor shall on the certificate of the Engineer make payment as follows:

(a) In the case of contract including delivery F.O.B. India.

(1) Eighty percent of the F.O.B. contract value of materials and materials from time to time delivered F.O.B.

(2) Payment upto 90 percent of the F.O.B. contract value on delivery of each completed section of the plant.

(3) The balance of F.O.B. contract value price at the end of 12 months after the due date of payment under (2)

(b) In the case of contract including delivery and erection

(1) Eighty percent of the F.O.B. contract value of materials and materials from time to time delivered F.O.B.

(2) Payment upto 90 percent of the total contract value on erection charges on taking over of each complete section of the plant.

(3) The balance of the contract value at the expiration of 12 months after the due date of payment under (2).

26. Provisional Sums.

27. Certificates of Engineer.

28. Due dates of payments.

Payments shall be due and payable by the purchaser on the date of each certificate of the Engineer.

In the event of the Engineer failing to issue a certificate as specified in clause 27, or if such certificate is properly issued and the contractor failing to pay the contractor within one month any amount due to the contractor shall have the right on giving one month's notice to the purchaser or to the Engineer to stop all operations and the purchaser shall be liable to pay the subsequent material costs incurred by such stoppages and the subsequent work shall be paid by the purchaser to the contractors as an extra payment.

11/2
M/s. Volkart's Amendment.

Accepted.

Accepted however subject to arbitration clause para No. 38.

... notify
... or
... effects of
... no-
... ary for making
... and of the spe-
... seven day's notice
... k on materials com-
... work or supply all
... seemed to deprive the
... may otherwise have in
... have been made on account
... looked upon as accep-

... sums which under
... er may be deducted by
... he contractor under the
... r the same by ordinary

Only acceptable if deductions have been mutually agreed to, otherwise subject to arbitration clause para 38.

... authorized to make under
... Engineer be entitled to
... railway station in
... y portion of the plant

(i) 80 % of the total contract value excluding erection charges of any portion of the plant and materials from time to time delivered L.O.R. Bombay but at the latest 3 months after notice that the material is ready for despatch from our principal's works.

... ue of the plant on

(ii) Payment upto 90 % of the total contract value excluding erection charges on taking over each complete section of the plant at the latest 6 months after notice that the material is ready for despatch from our principal's works.

... expiration of twelve

(iii) Payment upto 90% of all erection charges on taking over each complete section of the plant at the latest 3 months after the European erector has left Switzerland for India.

... mplete erection -

... y portion of the

(iv) The balance of the total contract value excluding erection charges at the expiration of twelve months after the due date of payment under (ii) above at the latest 18 months after notice that the material is ready for despatch.

... e including all
... the plant.

... on of twelve months after

(v) The balance of all the erection charges at the expiration of twelve months after the due date of payment under (iii) at the latest 18 months after the last consignment is ready for despatch in our principals' works

Accepted.

Accepted.

... thin one month from the

Accepted, it being understood that if the ^{Contractor} ~~contents~~ has to stop all operations he may on resumption of the work ask for a reasonable extra price for the supplementary work entailed by such a stoppage.

... ificate within the period
... ue on the purchaser
... rtified by the Engineer
... s notice in writing th
... the expenses and additio-
... umption of work shall
... and above the amount

cont....

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-6-

Our General Conditions of Contract.

payable under the contract.

29. Certificate not to affect right of the purchaser or contractor
30. Suspension of Works.
31. Extension of time for completion.
32. Damages for delay in completion.

If the contractor fails in the due performance of his the time fixed by the contractor or any extension thereof and shall have suffered any loss from the delay occasioned by the contractor is liable at the discretion of the Engineer to a penalty the contractor value of such portion only of the plant as caused by the delay be used commercially and efficiently during each day or extended time as the case may be and the actual time clause 35 and such penalty shall be in full satisfaction of the contractor for delay but shall not in any case exceed 25 percent of the value of the portion of the plant.

33. Tests on Completion.

Whenever possible all tests shall be carried out before the plant is erected, however, if it be necessary for the final tests as to performance over until the plant is erected at site they shall be carried out by the contractor's representatives within one month of the completion of the plant. Should the result of these tests not come within the margin of 5% if required be repeated within one month from the date the tests were carried out and the contractor shall repay to the purchaser all reasonable costs incurred by such tests.

34. Rejection of defective plant or work.

If the plant or work or any portion thereof before it is erected shall be defective or fails to fulfill the requirements of the contract, the purchaser shall give the contractor notice setting forth particulars of the defect and the contractor shall forthwith make the defective plant or work conform to the same to make it comply with the requirements of the contract. If the contractor does not do so within a reasonable time the purchaser may reject and replace the whole or any portion of the plant or work as is defective or fails to fulfill the requirements of the contract. The replacement shall be carried out by the purchaser within a reasonable time and where reasonably possible to the same specification and under the same conditions as the original. The contractor's full and extreme liability under this clause shall be satisfied by payment to the purchaser of the extra cost of such replacement, erected as provided for in the original contract such extra cost shall be the difference between the price paid by the purchaser under the contract and the price paid for such replacement and the contractor shall repay to the purchaser any sum paid by the purchaser to the contractor for the replacement of any defective plant. Should the purchaser not so replace the plant or work within a reasonable time, the contractor's full and extreme liability under this clause shall be satisfied by the repayment of all moneys paid by the purchaser to him in respect of such defective plant or work.

In the event of such rejection the purchaser shall be entitled to have the plant or work replaced in a reasonable and proper manner for a period of 12 months to enable him to obtain other replacement plant or work. If the rejected plant or work is used commercially the contractor shall be entitled to a reasonable sum as payment for such use.

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M/s. Volkart's Amendments.

Accepted.

Accepted.

Accepted.

contract within
the purchaser
such failure, the contract
into 4 percent, reckoned on
not in consequence
month between the appoin-
f acceptance under
e contractor's liability
contract value of such

We can only agree to guarantee the deliveries ex-
works stipulated in the schedule of Deliveries and in
the event of delays accept a penalty as liquidated
damages of one half (1/2) per cent per full work week's
delay and subject to a maximum of 5% of the contract
price, provided the execution of the contract is not
delayed by instructions or lack of instructions from
the purchaser or by industrial disputes or by causes
whatsoever beyond our and/or manufacturer's reasonable
control.

e shipments should,
e and guarantees to be held
out in the presence
completion of erection.
specified, the tests shall
if plant is ready for retest
the expenses to which he may

Accepted except that in the event of repeat test no
over expense will be paid by the contractor to the
purchaser.

is taken over under clause
contract, the Engineer
such defects or failure
or work good or alter
contract should he fail to do
place at the cost of the
the case may be which
contract. Such replacement
he and at a reasonable price
competitive conditions.
shall be satisfied by the
replacement delivered and/or
cost being the ascertained
provisions above mention-
so replaced and the
in respect of such
rejected plant or work
liability under this
by the purchaser

Accepted however subject to the following ex- limita-
tions.

In the event of a dispute in regard to para 34,
the subject shall be referred to arbitration in accor-
dance with paragraph 38.

~~Further further,~~
The contractor will not be ~~paid~~ liable for any claims
for indirect losses and damages.

~~and~~ Rejection of plant or part thereof will not be
acceptable if the plant is capable of rendering the
services it is expected to give in normal commercial
use.

~~Rejection of plant or part thereof will~~
also not be acceptable for -

parts normally subject to wear and tear,
damage due to incorrect or negligent handling.

disregard of packing or operating instructions.
defective building or foundation work.

Acts of God or other causes beyond the Contractor's
Control.

The Contractor's liability will be limited to ~~the~~
making the repairs or replacements mentioned but ~~as it~~
does not ~~end~~ end to any resulting ~~damages~~ ~~whether~~ ~~direct~~
Contractor has knowledge or not that such resulting
damage will be suffered by the purchaser and all liabi-
lity for any such resulting damage is hereby excluded
Defective parts replaced will become the contractor's
property and will be returned to the contractor's or
Maker's works as the case may be at the purchaser's
expense if so required by the contractor.

entitled to the use of
me reasonably sufficient
ing the period the
hall be entitled to a

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Our General Conditions of Contract.

35. Taking over.

36. Maintenance.

For a period of 12(twelve) Calendar months commencing the satisfactory completion of the final tests at site or 30 from the date the plant is notified as being ready for despatch (be the earlier) the contractor's liability shall be limited to any defective parts that may develop in plant of his own or of his sub-contractor's approved under clause 6 under the contract by the contract under proper use and arising solely from fatigue or workmanship provided always that such defective parts as are returned to the contractor's work unless otherwise arranged

(2) If it becomes necessary for the contractor to replace defective portions of the plant under this clause the provisions shall apply to the portions of the plant so replaced or renewed of six months from the date of such replacement or renewal of above mentioned period of twelve months whichever may be the longer. If the defect is not remedied within a reasonable time the purchaser may at the contractor's risk and expense but without prejudice to which the purchaser may have against the contractor in respect

(3) The period or new parts will be delivered in accordance with the contract. The fitting up of these parts will also be done by the contractor. The fitting up of these parts will also be done by the contractor is carried out on his behalf at site the contractor shall be responsible for the repair.

(4) Where a general overhaul of the plant is required the charges thereof should ordinarily be borne by him while special or general overhaul rendered necessary during the maintenance period to effects ^{in the plant or defects} work carried out by the contractor should be borne by the contractor.

(5) At the end of the maintenance period the contractor shall be responsible for the maintenance of the plant. In respect of goods not covered by the first paragraph of this clause the purchaser shall be entitled to the benefit of any guarantee given by the original supplier or manufacturer of such goods.

37. Regulations of local Authorities. *

38. Arbitration.

If at any time any question, dispute or difference shall arise between the purchaser or the Engineer and the contractor claiming through him upon or in relation to or in connection with the contract either party may forthwith give to the other notice in writing of such question, dispute or difference and the same shall be referred to arbitration of two persons one to be nominated by each party or failing agreement between such arbitrators to an umpire within one month from the latest date of their respective appointment. Submission shall be deemed to be a submission to arbitration of the Indian Arbitration Act 1940 or any statutory modification or re-enactment thereof in force in India. The award of the arbitrators or umpire shall be final and binding upon every or any such reference the costs of and incidental to the arbitration and award respectively shall be in the discretion of the arbitrators or umpire who may determine the amount thereof or direct the same to be paid by the solicitor and client or as between party and party and shall be borne and paid by whom and in what manner the same shall be borne and paid provided that neither party to the dispute shall in respect of any costs received from the other party by way of cost any amount exceeding the actual fees, costs and expenses incurred by the party in respect of the dispute under the contract shall, if reasonably possible continue proceedings and no payments due or payable by the purchaser on account of such proceedings.

Umpire

Umpire

The percentages above referred to in this clause are percentages of the monetary award which does not exceed Rs.10,000. Three percent on the first Rs.10,000, two percent on the next Rs.50,000 or any

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L/s. Volland's Amendments.

Accepted.

immediately upon
(thirtysix) months
which (whichever shall
to the replacement
manufacture or those
conditions provided for
ity design, materials
are not available at
of the plant are prompt-
ed.

place or renew any
ions of this clause
ed until the expiration
until the end of the
later. In any defects
proceed to do the work
any other rights which
at of such defects.

place with clause 10.
actor. If any repair
at the cost of such

by the purchaser
the cost of any
maintenance period due
by the contractor.

the liability clause.
is clause the pur-
the contractor

We guarantee the proper working of all material
supplied for a period of 12 months commencing immediately
upon the satisfactory completion of the final tests on
site subject -

(1) Should despatch and erection be delayed our
guarantee should be limited to a period of 24 months from
the date the material is notified as being ready for
despatch from Works.

(2) The terms of payment in the agreement having
been duly and punctually complied with by the purchaser.

(3) The plant and machinery being used in a proper
and workmanshiplike manner by the purchaser.

(4) The purchaser giving immediate intimation of
defects or difficulties to the contractor.

(5) The purchaser bearing the cost of freight, insu-
rance, duty, clearing, etc., of the faulty material to the
contractors works and/or manufacturer's works and back
to site.

Any obligation under para 36 will automatically
expire if the purchaser does not place the contract materi-
al at the disposal of the contractor for a reasonable
time enabling the contractor to correct recognised faults,
or if the purchaser either himself or through a third party
carries out alterations and repairs without the Contractor's
written consent.

Furthermore the guarantee given under para 36 does
also not cover any of the occurrences as mentioned under
para 34 re. parts normally subject to wear and tear; damage
due to incorrect or negligent handling, disregard of packing
or operating instructions, defective buildings and/or founda-
tions Acts of God.

* Accepted.

alsoever shall
or any person
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iting of the existence of
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to the dispute
appointed by them
pointments. Such
within the meaning
tions thereof. The
ling upon the parties
to the reference
rators or umpire
stated as between
directly from and to
vided however
claim be entitled to
ing the percentage set
incurred by him. Work
using the arbitration
shall be withheld on

Accepted with the proviso that the arbitrators
shall be appointed in accordance with the rules of condi-
tions conciliation and Arbitration of the International
Chamber of Commerce, and the question dispute or difference
shall finally be settled under the above mentioned rules.

five percent on any such
on the sum of 40,000. or

part of the and

cont...

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Our General Conditions of Contract.

39. one percent on any excess over 1,00,000

39. Construction of contract.

40. Marginal notes.

BM/24.4.

19
M/s. Volkart's amendments.

•Accepted.

No comments.

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-8-

Our General Conditions of Contract.

29. one percent on any excess over 1,00,000

39. Construction of contract.

40. Marginal notes.

BM/24.4.

Letter.

No. T.8.58 / 11875.
Electric Grid Offices,
Mercantile Bank Building, Fort,
Bombay 1. 26 April, 1952.

To

The Secretary to Government,
Public Works Department,
BOMBAY.

Subject:- Jog-Karnatak Electric Grid Scheme .
Communication system.

1. Tenders were invited for the supply and installation of the Telephone equipment required for the above scheme. After analysing the various tenders and examining the technical features and the cost of equipment involved, orders were placed with the lowest tenderers viz. M/s. Protos Engineering Company for the High tension protected equipment for the 33 KV and 11 KV system and with M/s. Volkart Brothers for the Carrier equipment for the 110 KV system. The total value of the order on M/s. Volkart's is Rs.2.62.255/- and on M/s. Protos is Rs.67.829/-. Copies of the order on the respective firms are enclosed herewith.

In respect of the General Conditions of Contract and the terms of payment M/s. Volkart's have put forward certain amendments and the enclosed statement gives the Departmental conditions and the amendments proposed by the Co. They have been examined and are found to be of a minor nature.

In respect of the terms of payment M/s. Protos are agreeable only for the following terms.

1. 10% advance with order.
2. 20% when Import License is granted.
3. 20% 4 months after placing the order..
4. 20% when goods are ready for shipment.
5. 10% against Railway Receipt.
6. 15% after erection and handing over but not later than 6 months after payment under 5 falls due.
7. 5% 6 months after payment under 5 falls due.

The above involves advance payment. But these terms are generally similar to and even less stringent than those approved in the case of order for High Tension protected telephone Equipment for South Gujarat in Govt. letter No.6572/26-BI(1) dated 19-7-1950 and orders placed in this office No.T/4 C.19-13045 dated 3rd August 1952.

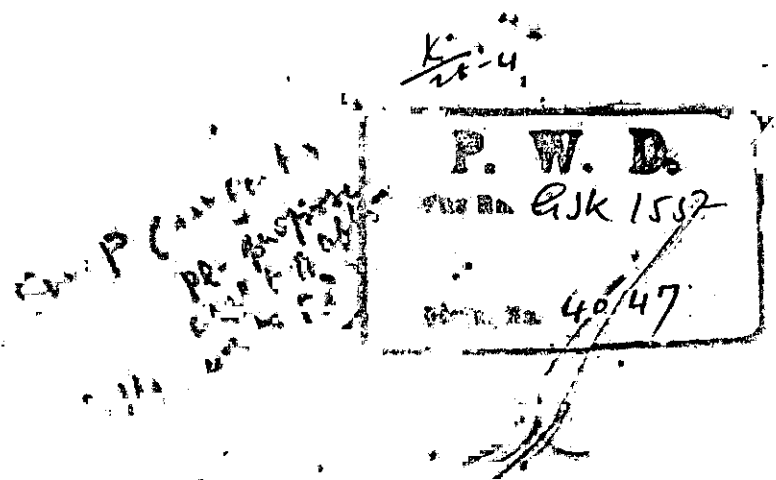
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as shown in the statement enclosed.

As the last date for placing the orders was 29-3-1952 and as the conditions suggested were reasonable under the prevailing conditions, those conditions were provisionally accepted subject to the approval of Government. I request early approval of the Government for accepting the above terms of payment as contained in the respective orders, copies of which are attached herewith and the modifications to the General Conditions of Contract as per statement enclosed in respect of M/s. Volkart Brothers.

Mr. S. S. Chaudhary
25/4/52
Chief Engineer.

Encl: 1. Copies of orders
2. 2 Statements.

BM/24.4.



K.P.V.

113 12

GSR 1552/40147

P.W.D.

Submitted.

2]- For reasons stated in his letter ^{10/11/52} within the C.E., B.E.S. has placed orders for the supply & installation of the Telephone Equipment reqd. for the Jog-Karnatak Grid Scheme, Communication System, with the following firms:-

Name of Firm	Equipment	Cost.
		R.
^{10/4/59} (a) M/S Protos Engineering Coy., del.	High tension protected Equip. equipment for 33 KV & 11 KV Systems	67,829
^{10/1-19} (b) M/S Volkart Bros	Carrier Equipment for the 110 KV System	2,62,255.

3]- The terms of payment ^{accepted by the C.E., B.E.S.} in respect of the contract placed with M/S Protos Engrs. Coy. are different from the Departmental terms of payment. In the case of contract placed with M/S Volkart Bros there is similar variation in the terms of payment and there are variations in the Genl. Conditions of Contract also. The C.E. has forwarded ^{pp 937-956/109} two statements showing the comparison between the Departmental terms & conditions & the terms and conditions accepted in both the cases. As the terms & conditions ^{were} ~~are~~ different from the Departmental terms & conditions - and as the orders were to be placed before the 29-3-52, the C.E. has accepted them provisionally subject

GJK 1552/40147

Subject to the approval of Govt. In terms & conditions are considered by the CE, B.E.G. as reasonable. Attention in this con. is invited to 'A' in p. III ante. In view thereof the CE, B.E.G.'s action may be approved after U.O.R. to the F.D.

[Through B.A. & DE(?)]

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3/5/52

DS(9HE)

Secy

urgent

x Govt. Wm F.D. d. the

6-5-52

x with file

NO. 6572/86-XIII.

FINANCE DEPARTMENT	
File No.	<u>III</u>
Date	<u>6-5-52</u>
Serial	<u>44855</u>

Fin. Dept. no (5-6-52) TEL.
B III

Pl. see i) the statement at p. 93 ante and

ii) the letter from the Chief Engr. at p. III-12 ante.

In view of the circumstances explained by the P.W.D. in its foregoing note, the proposal made therein may be agreed to, subject to the remarks that it will be the responsibility of the Chief Engr. to see that the equipments in question are received by him in due time

18.12.52

K. P. D.

File No. GJK 1552

Serial No. 50093

S.H.
22-5-52

D Ecker
26/5

K. P. D.
26/5/52
U.S. (E)

to the P.W.D. of 26.5.52

Samp
27/5

~~118~~ 125 — GJK 1552 50093.

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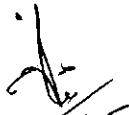
P.W.D.

Submitted with reference to the ^{b113114} O.N.

-dated the 2-5-12.

2/- Please see the ^{b114} F.D. note within. In view
thereof the C.E./B.E.G. may be addressed as
per draft put up for approval.

[Through B-Ann & D.E.G.]


11/6/12


7-6-12

DS(AM)
Secy

18/7
11/6

 11/6


12/6/12

No. GJK 1552K

Letter

P.W.D.

B.C. (Bombay No. 1)

13 June 1952

To

The G.E.B. E.S.

Subject: :- Jog Karmatak El. Grid Scheme
Communication system -

Reference: Your letter No. T. 8 S/8/11875,
dated the 26.4.52.

2/- Your action in placing orders with the firms mentioned below for the equipment mentioned against them as per their terms and conditions is approved subject to the condition that it will be your responsibility to ^{ensure} ~~see~~ that the equipments in question are recd. by you in due time :-

<u>Name of Firm</u>	<u>Equipment</u>	<u>Cost</u> Rs.
(1) M/s Protos Engineering Coy., Ltd.	High tension protected equipment for 33 KV & 11 KV systems	67,829
(2) M/s Volkart Brothers	Carrier Equipment for the	2,62,255

involved
3. The expense ^{to be} debited to the budget head "81.A. Capital outlay on Electricity schemes - works - Hydro - Electric - schemes" and ^{to be} met from the provision made thereunder for distribution of jog power in Hubli & Haveri Areas. By order etc.

DA - Nil

A.S. to G.A. - pure copy

GJK1552/50093

15/6
16/11/12

Copy, with a copy of the letter replies to,
forwarded for information to—

the F.D.

the A.C. Bombay (through the F.D.)

6
7-6-52

13/6
13/6

40: Stamp not stated
Issue with documents
14-6-52

Wfai (262)
13/1

file
16/6

177
Report appearing on page 8 of the 'Times of India'
dated 10.6.1952.

KARNATAK STATE DEMAND

Minister's View.

Hubli, June 9: Mr. K. E. Patil, Bombay's Deputy Minister for Agriculture and Forests, arrived here on Sunday after completing a five-day tour of Ranabennur and Haveri Talukas of Dharwar District.

Speaking at public meetings he referred to the demand for a separate Karnatak State and said that the Congress alone could deliver the goods and constitutional methods should be adopted to achieve it.

Mr. Patil visited several agricultural centres and inspected the sites of two lift irrigation schemes - the Chakkurvatti and Airani - which together aim at irrigating 8,000 extra acres of land. He exhorted the villagers to contribute financially to the completion of the schemes.

These schemes would be worked with power from the Jog electric works, he said.

The Samyukta Karnatak Association was "at home" on Sunday to Mr. Patil and Mr. R. S. Hukkerikar, President of the Bombay Legislative Council. - P.T.I.

Letter.

13
No.T-8/1

18366
Electric Grid Offices,
Mercantile Bank Building, Fort
Bombay.1: June, 1952.

To

The Secretary to Government,
Public Works Department,
Bombay.

Subject:- Jog-Karnatak Electric Grid Scheme:
Utilisation of Jog Power for lift
irrigation at Airani etc, on
Tungabhadra river bank.

In a news report appearing on page 8 of the "Times of India" dated 10.6.52 the Deputy Minister for Agriculture & Forests is reported to have stated that Jog Power would be utilised for lift irrigation schemes at Airani and Chakkurvatti. A copy of the news report is enclosed for ready reference.

On this subject, I wish to clarify the position as under:-

Although in the initial stages of planning of the Jog Karnatak Electric Grid Scheme, it was proposed to utilise 500 kw of Jog Power for lift irrigation at Airani, Chakkurvatti, Tumminakatti and Guttal, the Director of Agricultural Engineering intimated in his letter^{no. 18} dated 13.12.1948 that Govt. had decided not to take up any lift irrigation schemes and that it was not possible to guarantee any lift irrigation load. Accordingly a revised load statement ~~was~~ excluding the above lift irrigation load was submitted to Government under our letter No.T.8/3/23190 dated 10.1.50 and was approved by Government in P.W.D.letter No.2004/36-V-E(I) dated 11.5.50. The estimates for the scheme were finalised accordingly.

It will therefore be seen that the Jog-Karnatak Electric Grid Scheme, of which the estimates are administratively approved, does not provide for giving supply to the above lift irrigation loads.

9/21/52
87403
K/21.6.
Chief Engineer.

Encl: Copy of Press report
from page 8 of "Times
of India" dated 10.6.52.

K/21.6.

Chief Engineer.

Min 9/21/52
30/6/52
24 Min Agri & F.W.D.

Office of the Dy.M. (A & F)

222300
21/7

I come from Ranebennur constituency and I am aware of the development of Jog project in the area of Ranebennur, Haveri, etc. from its beginning. I am ^{also} aware that the Lift Irrigation Schemes in the Ranebennur taluka are not taken up by Govt. as yet. Hence the question of use of electric power for those schemes at present does not arise. But in ~~the~~ case the Lift Irrigation Schemes of the Taluka are taken up by Co-op. societies, Govt. will have to consider the question of supply of power to these schemes as was originally intended. It was only this idea that was expressed by me.

It has been brought to my notice that there is a great demand for power from a number of villages in that area. The extent of load is not estimated and hence nothing could be said about the feasibility of extending the facility of power to those villages at this stage.

However, I am not aware of the latest position of the development of the work in that area. I would like to know the same and discuss with the officer-in-charge concerned.

Dy.M. (A & F)

Secy. P.W.D.

CE. may BE if may see and
discuss with Dy.M. (A & F)

19/7.
12-0

E.E. (Cand)
8/7/52

For. to Mr CE, BE-G, d-4

21-7-52

P.T.O.

ELECTRIC GRID OFFICES.

Returned with compliments.

16 With reference to the last para of the note dated (21-7-1952 of the Dy.Minister (A & F), a suitable date and time when the Dy.Minister will be in Bombay next and can discuss the matter, may be kindly fixed up and advise me so that the Executive Engineer-in-charge of the Scheme, Shri. K.S.Ramu may be sent for the discussion.

Sanuchandani
30.7/52.

The Secy.to Govt.,
P.W.D., Bombay.

U.O.R. No. T.8/1/22674

Bombay, 1.

July, 1952.

30/7

VLR.28/7/52.

K
31-7

P. W. D.
FEB No. 40K 1532
SERIAL No. 71593

San P.
31/7

K
30-7-52 ✓

KAR

P.W.D.

Submitted with reference to the
 minute of the Dy. Minister (AHE), dated the
 16-7-52 & the Secy's instructions thereunder.
 2/- Please see the C.E. B.E.G.'s note within.
 The Dy. Minister (AHE) will kindly state the
 the issue that will be suitable for him
 for discussion with Shri. K. S. Ramu, Ex. Engr.,
 the question re: distribution of log power.

[Signature]
 15/8/52

DS(102)
 Secy
 Dy. Minister
 (AHE)

[Signature]
 15/8/52

g.b.
 6/8

It will suit me to discuss the matter
 on ~~Wednesday~~ Friday the 27th instant at my office
 in the Secretariat at Bombay at about
 2 P.M. or Any day after 2nd of Sept.

[Signature]
 21/8.

AHE
 P.W.D.

Immediate action
 27/8
 4-30

KAR

Resubmitted with the necc. draft

for approval

[Signature]
 28/8/52

Group P
 28/8

DS(102)

[Signature]
 28/8

Immediate
No. EJK 1552K

9-137
Letter

EJK 1552/71893

P.W.D
B.E. (Bombay No.1)

28th August 1952

To

The Chief Engineer
Bombay Electric Grid

Subject: - Distribution of Jagg Power.

Reference: Correspondence ending with your Memo.
p10
No. T. 8/1/22674, dated the 30-7-52.

2/- It will be suitable for the Deputy
Minister, Agriculture & Forest, to discuss the matter
re: distribution of Jagg Power, with the ~~Ex-Exec~~
Executive Engineer ~~the~~ in charge of the Scheme
on Friday the 29th August 1952 at 2 P.M. in
his office in the Civil Secretariat Bombay -
shw

GJK 1552/71573

~~10~~ - 138

Shri K. S. Ramu, Ex. Engr. may be instructed
to see & discuss the matter with the Dy. Minister
at the same time.

By order etc,

DA-Nil

A.S. Secy., P.W.D.

Copy forwarded to the P.A. to the Dy.
Minister, A.S.F. for information.

10
28/1/12

Issue to day
check with spec copy
28/8
Issued
28/8/12

Kor.

11

17, 9

EWK 1582/71573.

Page

Resubmitted.

ph 9-10

2/- The G.L. citation has been issued. The papers may now be ^{sent} ~~sent~~ up to the P.A. to Deputy Minister, A & F. for the use of the Dy. Minister at the time of discussion with Shri K.S. Ramu, Ex. Engr. He may be requested to return the papers ~~when~~ ^{before} after the discussion.

28-8-12

ASB
28/8/52

Supdt.

OFFICE OF THE DY. MINISTER
FOR AGRICULTURE & FOR STS,
SECRETARIAT, BOMBAY 1.
~~COUNCIL HALL, POONA.~~

To

P.A. to ^{Dy. Min.} ~~Min.~~ A & F.

Shri K.S. Ramu, Ex. Engr.

Called on the Dy. M. for A & F

Discussion on the subject has been discussed.

G.S. (Pl. send today. for tomorrow is the meeting)

Re to P.A.

28/8

30/8

Personal Asstt. to the
Dy. Minister for Agriculture
and Forests.

1C
6-9

P. W. D.
EWK 1552
82946

K

5-7-52

Sam P
6/9

U.O.R to P.W.D.

K.B.

100

P.W.D.

1. ii Submitted with reference to the -
O.N. dated the 28-8-52

2. Please see the note of P.A. to Dy. Minister
for Agriculture & Forests overleaf. Further
developments in the matter may be awaited.

6-9-52

ASB
8/9

K.B.

Supdt.

K.B.

P.W.D. ~~Aug 10~~ (8-10-52)

Resubmitted.

2. These papers are in connection with
a discussion between Shri K. J. Ramn, Ex.

Eng., Electric grid, and Dy. Minister, Agriculture
and Forests, on the 29-8-52 regarding

distribution of power for lift irrigation
schemes in the Ranchem tank. The matter
has been discussed by the Ex. Eng. and Dy.

Minister, Agriculture and Forests, vide his
note dt. the 30-8-52. The C.E., B.E. &

has not, however, reported to Govt. regarding
the decisions arrived at during the course
of...

Sept 13/10
Shri N. 17/10

14.

J K 1552/22946.

of the discussion. The C.E. D.E. J, may therefore
be addressed as per the draft put up for approval.

ms
5-11-52.

As (ms)
~~DIS. (I.E.)~~

sd
6/11/52

15.143

JK 1552/22946.

No. JK 1552 H. Letter.

P.W.D.

B. C. (Bombay No. 1)
8th Nov., 52.

To
The C.E., D.E. &

Subject:- Distribution of Jy Power.

pp 9-10 Reference: correspondence resting
with G.L. No. JK 1552 H, dt. the 28-2-52,
on the subject mentioned above.

2. Please report ^{the result of the} ~~further development~~
discussion that took place between the Dy. Minister ⁱⁿ ~~for~~
(Agriculture, ...)

Agriculture and Forests) and the Ex. Sec. in charge of the
~~in the matter of~~ Power Scheme, on the 29-8-1952. D.A - Nil.

~~in~~
5-11-52.

~~Text~~

By order etc.

A.S. to Govt.

174 :-
No. GJK 1552 K.

Letter.

Public Works Department,
Bombay Castle (Bombay No.1),
8th November 1952.

To

The Chief Engineer, Bombay Electric Grid.

Subject:- Distribution of Jog Power.

Reference: Correspondence resting with Government Letter
No. GJK 1552 K, dated the 28th August 1952, on the subject
mentioned above.

2. Please report the result of the discussion ~~that~~ that
took place between the Deputy Minister (Agriculture and
Forests) and the Executive Engineer in charge of the Jog Power
Scheme, on the 29th August 1952.

By order of the Governor of Bombay,

10/11/52 DA
2 P.3
[Signature] *O/C*
Assistant Secretary to the Government of Bombay,
Public Works Department.

2
VMW.
11/52.
11/11
D.A.- Nil.

107

Discussion with Shri. K.F. Patil, Deputy Minister,
Agriculture and Forest on 29-8-1952.

I saw the Deputy Minister as instructed on 29-8-1952.

The Deputy Minister wanted to know the progress of works relating to the Jog Karnatak Scheme and when they would be completed

The following information was given:-

- 1) Most of substation equipment ~~for~~ ordered ^{from} M/s. International General Electric Co. from America have been received and the balance expected in about 3 to 4 months.
2. All the insulators ordered for the transmission line have been received at site.
3. About 100 miles of conductors for Harihar section have been manufactured and are ready for despatch.
4. Towers for 110 kV lines are expected to be fabricated from Nov. 52 and supply should be completed in about 7 months, ~~the are~~ after at the rate of about 300 tons/month.
5. 33 kV Rail poles have started arriving and wood poles are being treated at ~~Bharavati~~ ^{Bharavati}.
6. The construction of the colony buildings at Hubli is in progress and that contracts have been awarded for the construction of buildings at Ranibennur and Byadgi Sub-Stations. Tenders have been received for Haveri and Harihar sub-station buildings. Tenders for other sub-station buildings will be invited shortly.
7. The erection of the sub-station structures will be taken up after this year's monsoon by about November 1952.
8. On the basis of the delivery of materials and construction programme we expect the Harihar-Haveri Section to be completed by about August 1953 and the Jog-Hubli section by June 1954. The rural distribution schemes may be completed by about June 1954.

The minister wanted to know whether we can supply to some of the new lift irrigation schemes near Aironi, Tuminkatti in Harihar-Haveri Section. He also said that he was interested in the electrical development to the following additional places not included in the main Scheme.

From Harihar to

- 1) Maknar
- 2) Mudennur
- 3) Kuppelur
- 4) Tuminkathi

From Harihar to

- 5) Nadiharlatti
- 6) Airani
- 7) Ammallapur
- 8) Medleni
- 9) Chikkakirarathi
- 10) Guttal.

From Haveri to.

- 11) Karajki
- 12) Asandi (from Byadgi)

- 2 - ~~21~~ 19

He also wanted to know whether we can supply ~~the~~ ^{to} ~~Ha~~ Haveri area from Sirsi substation in case more power was made available from Mysore Govt.

I told him that power upto 1500 kW in the Harihar Haveri Section available from Mysore Govt. had been earmarked for the three towns, Ranibennur, Byadgi, Haveri and the 8 villages sanctioned by Govt.

When more power is made available from Mysore in this Section we will have to provide additional transformers at Harihar, when the load increases beyond 2000 kVA capacity that will be installed at Harihar. The necessary switchgear transformers, distribution schemes required have to be considered as an extension to the main scheme.

In regard to transferring more power from Sirsi. I ~~told~~ told him that we are providing only 11 kV line from Sirsi to Hanagal and with this voltage the power to be transmitted will be only about 500 kW as now included in the first stage of the scheme. But we are considering the construction of this line (Sirsi-Hangal) as well as Byadgi-Haveri with 33 kV clearances (though initially operated at 11 kv) so that change over at a later date may be easily made and by linking Hanagal-Haveri we can supply more load from Sirsi to Haveri Section. This would require additional 110/33 kV transformers and switchgear etc. at Sirsi, and the cost of these and other transformers and distribution schemes required have to be considered as an extension scheme and that they could be adopted later as the present scheme will permit of such extensions without making any of the equipment now installed idle as he ~~would~~ wanted to know whether that would ^{cause} ~~come~~ any of the equipment now to be installed as surplus.

He wanted to know whether at Harihar sub-station we could arrange to give supply to lift irrigation ^{scheme} ~~scheme~~ at Kodiyal, about 3 to 4 furlongs from S.S. and also to the ~~houses~~ ^{for} there, a total load of about 100 kW. I told him that our Station transformer at this station was of 300 kVA (33 kV/400) and hence we could supply L.T. power upto about 100 kW, since the distance was only 3 to 4 furlongs. We have no 11 kV distribution in this sub-station

area and we have not included for L.T. and H.T. Distribution in our estimates for this station. Hence additional expenditure will have to be ~~ex~~ incurred for this L.T. Distribution, although limited power supply to this area as suggested is feasible.

The Deputy Minister in the end told me that he only wanted to discuss the general feasibility of the schemes he was thinking of ~~for~~ Harihar-Haveri area and whether it would be possible to develop later as an extension to the present Scheme and to know the present progress made. He said that he would be writing to the ~~Department~~ Department regarding the L.T. supply to Kodiyal Near Harihar sub-station.



Executive Engineer (Transmission).

LETTER.

25
18 5

No.T.8/27/ 35372
Electric Grid Offices,
Mercantile Bank Building, Fort,
Bombay 1. 18-November, 1952-

To

The Assistant Secretary to the Govt.
Public Works Department,
Bombay.

Sub:-Distribution of Jog Power.

Ref:-Your Office No.H.J.K.1552K
dated 8-11-1952. P-15

I enclose herewith the report of the Executive Engineer in charge of the Jog Power Scheme in regard to this discussion with the Deputy Minister (Agriculture and Forests) on the 29th August 1952 on the above subject.

pp.19-24.

Encl:-Copy of the
report.

R. S. Shai
18.11.52

Superintending Engineer (Transmission).

VLR.1 5/11/52.

K

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GJK 1552
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K.Br.

P-15

P.W.D.

Submitted with refce. to G. No: GJK 1552-K,
dt. the 8-11-1952.

P-25

2. The Electric Grid Dept. has forwarded a copy of
PP. 19-24
the report of the Ex. Engr. (Transmission) regarding
the discussion ^{that he had} with the Dy. M. (A. & T.) on the subject
of distribution of fog power. No specific action is
neccy. on these papers.

Record.

K.S.H.

10/12/52.

AS (III.)

Secy
10/12/52

file
10/12

157
Letter.

No. T-8/S-16/31389
Electric Grid Offices,
Mercantile Bank Building,
Fort, Bombay 1 : Dated. 14th October, 1952.

To

The Secretary to Government,
Public Works Department,
Bombay.

Sub:- Jog-Karnatak Electric Grid Scheme -
Erection of 110 kV lines -
Award of contracts.

The target date for completion of the Jog-Karnatak Electric Grid Scheme, and the commissioning of Hubli, Sirsi, Dandeli and other substations is 30th June, 1954. The 110 kV line from the Mahatma Gandhi power house at Jog Falls to Hubli and Dandeli, should, therefore, be erected and ready for tests in the first quarter of 1954. The transmission line materials have been ordered some months back. The insulators have arrived at site, and the conductors will soon start arriving. It will be recalled that the Industries & Supplies Department, New Delhi, who have been entrusted the work of ordering the material, had to cancel one order for towers and place a fresh order. This latter material is now scheduled for delivery from next month onwards in small lots.

2. For erection of the transmission lines, sealed tenders were invited by public advertisement, and were opened as scheduled on 30-7-52 in the presence of such of the tenderers who cared to attend. Out of twenty-eight firms who purchased the specification, thirteen submitted the tenders.

opened on 30/7/52

The bid was invited for erection of all the 110 kV, 66 kV, 33 kV and 11 kV transmission lines. The 110 kV line is a tower line, whereas 33 kV and 11 kV lines are pole lines on much shorter spans. The 66 kV line is only for four spans near Harihar, and for convenience of analysis and subsequent award of work, it has been grouped with the 33 kV pole line from Harihar to Renebennur and Byadgi. Thus, the tenders have been considered in two

viz. the main 110 kV tower lines with long spans, and the 33 kV and 11 kV pole lines with shorter spans, including the four span 66 kV portion near Harihar.. The contractors for the pole lines, who have submitted attractive bids, are mostly the smaller firms, and therefore, in the interest of the Government, proposals for the award of work for these lines have been ^{kept} distinct from those for the 110 kV tower lines; the present reference to Government is in respect of the latter only.

3. The following firms only have quoted for the 110 kV tower line from Jog to Hubli and Dandeli;-

- 1) Messrs. National Electric Co. of Bombay. X
- 2) " Steel Construction Co., Bangalore. }
- 3) " India Electric Corporation, Bombay. }
- 4) " Patel Electric Co., Bombay. X

4. Messrs. British Insulated Callender's Cables Ltd., who are specialists in construction of E.H.T. tower lines, have regretted their inability to quote.

5. I am attaching hereto a statement showing the comparative quotations of the above four firms, as per tenders originally received.

6. Messrs. National Electric Co. have subsequently in their letter No. NE/EG/1952 of 29-8-52 advised us that as their arrangement which they were going to make for tower erection with a certain erection engineer did not materialise, they do not wish to take up the 110 kV line work.

7. Messrs. Patel Electric Co. have not quoted for the complete line, but only for a few sections. They have further stated in their letter of 21-8-52 that they have not carried out in the past any erection of tower line of 66 kV or 110 kV, not even 33 kV. It is not easy to secure ~~such~~ services of tower line engineers at a short notice, nor it is possible to spring up an adequate organisation to handle tower line erection at a hasty call so necessary to ensure early completion of the line. The firm has experience upto 11 kV pole lines only, and have tendered for the 33 kV and 11 kV pole lines of

this scheme, and for which they hold reasonable chance of being considered for certain sections. However, due to inexperience of the firm for E. H. T. tower lines, and the incompleteness of the tender and unworkability of some of the rates, it is not possible to recommend entrusting any 110 kV line work to this firm.

8. This leads for detailed examination only the following two tenders;-

- 1) Messrs. Steel Construction Co., Bangalore, and
- 2) " India Electric Corporation, Bombay.

Of the above, the rates of Messrs. Steel Construction Co. were very low and unworkable for some of the items, and very high for the others. On the other hand, the rates of Messrs. India Electric Corporation, though high in comparison with those of the Steel Construction Co., Bangalore, stand reasonable comparison with the rates quoted by Messrs. British Insulated Callender's Cables Ltd. on one of our earlier tenders. Messrs. Steel Construction Co. have not carried out any transmission line work in the past, and therefore, it is not considered prudent to award the whole work to that firm. Therefore, the following actions were taken;-

- 1) Messrs. Steel Construction Co. were asked to explain some of the glaring inconsistencies in their rates and to confirm that they were prepared to pay ten percent security deposit, and to furnish a programme for erection of the line.
- 2) Messrs. India Electric Corporation were asked whether they would be prepared to negotiate for the work at lower rates.

Previous to these, both firms were asked to submit the details of their organisation, financial structure, works carried out and the credentials of their

④
may be sent
for perusal
by
27/10

supervising staff. Copy of replies from both the firms are attached with their tenders enclosed.

9. In response to further enquiries, re. rates and security deposit, Messrs. Steel Construction Co. have informed us vide their letter No. Nil dated 11-10-52 attached that there were mistakes in working out the rates they had submitted in their original tender, and that certain items like excavation and back-filling, which were supposed to be included when submitting the prices, were actually not included, and therefore, will have to be paid for as extra. They also advised a few other corrections to rates in view of errors made in original tenders. These are explained in their letter of 11-10-52 attached. This enhances their tender value, but still it is quite lower than that of their competitors.

Messrs. India Electric Corporation advised that they were prepared to lower if the whole work was awarded to them, but the maximum reduction they could offer in their rates was ten percent instead of five percent included in their original tender.

10. On the basis of the revised rates quoted by Messrs. Steel Corporation Co., and the ~~original~~ rates of Messrs. India Electric Corporation, the total cost for each section of the transmission line is estimated as follows:-

Section	: Route : Miles	: M/s. Steel Cons- : truction Co., : Bangalore.	: M/s. India Elect- : ric Corporation, : Bombay.
1) Jog-Sirsi	: 33	Rs.3,56,775	Rs.5,74,435
2) Sirsi-Kavalvad	: 44	" 4,34,345	" 7,05,195
3) Kavalvad-Hubli	: 20	" 1,94,910	" 2,64,784
4) Kavalvad-Dandeli	: 17	" 1,69,390	" 2,56,950
5) Sheravati River Crossing	: 2-Spans	" 36,860	" 1,25,960
Total	:	Rs.11,92,280	Rs.19,27,324
Reduction if full work is given	:	Nil	" 1,92,732 (10%)
Nett Total	:	Rs.11,92,280	Rs.17,34,592

11. It will be noticed that the tender of Messrs. Steel Construction Co. of Bangalore is 69% that of their competitors Messrs. India Electric Corporation, Bombay, the difference being Rs.5.48^{4.48} lakhs. However, the following considerations weigh against awarding the complete work to this firm;-

- 1) The Steel Construction Co., Bangalore is a moderate size firm of structural engineers of Bangalore, who have not so far carried out any work pertaining to electrical transmission lines. They promise to engage the services of a transmission engineer previously in the employ of Messrs. Henley's Telegraph Corporation.
- 2) The firm has no transmission line construction Organisation, but would set up one if the work is given to them.
- 3) The country through which the transmission line passes has some dense forests and high hills representing one of the most difficult terrain in India for transmission line construction.
- 4) The Jog-Karnatak Scheme has to be commissioned with the least possible delay. The power in the Mysore Government State is available and earmarked ~~from~~ for our use, and the transmission line must be ready in the first quarter of 1954. Any delay in completion of the line would result in heavy loss to the Government on interest and depreciation on about Rs.1 crore worth of material, which will have already arrived, and on the expense of the Jog Construction Division, which is functioning. The delay may also mean a loss of revenue from sale of power which may come to a few lakhs depending on the delay.
- 5) The experience of this department in awarding work to a South Indian firm which had trans-

mission line experience, but which had quoted low rates in order to get the work for the North Gujarat Scheme, has been very unsatisfactory, and the lines which are scheduled for being completed in nine months, have not been completed yet, even after two years. This was for 11-kV lines, so for 110 kV lines, the department has to be extra careful in selection of contractors.

12. From the foregoing considerations, it is considered desirable to split the order between the two firms so as to make it reasonably economical and safe for the Government, and at the same time, have two contractors in the field so that in case one is unable to fulfil his assignment in time and in satisfactory manner, the Government may be in a position to entrust the work to the other party, and arrange for its expeditious execution.

13. It is noteworthy that firms of the standing of Messrs. British Insulated Callender's Cables or Messrs. Henleys, who have the necessary construction organisation and experience on tower lines, have not quoted in this instance. Their senior engineers who are well-known to us have explained that they have works in hand all over the country which will keep their organization fully occupied for some years. Therefore, we have to select from less experienced firms.

14. I, therefore, recommend that Sections (I) Jog-Sirsi, (II) Sirsi-Kavalvad, and (V) Sherawati River Crossing, valued at a total of about Rs.8.28 lakhs may be awarded to Messrs. Steel Construction Co. of Bangalore, and that Section (III) and (IV), viz. Kavalgad-Hubli and Kavalvad-Dandeli, valued at Rs.5.22 lakhs may be awarded to Messrs. India Electric Corporation, Bombay. The total value of the work would thus be Rs.13.50 lakhs to be distributed between the two firms in the ratio of 61.5 percent : 38.5 percent. The provision in the Administratively approved estimate for

X erection of the line is Rs.8.54 Lakhs but there will be a saving in the cost of materials for the 110 kV and 33 kV and 11-kV transmission lines of Rs. 5 lakhs, on account of reduced mileage of 110 kV line, as determined by final survey, compared to the estimated mileage, and the saving in cost of conductor in 33 kV and 11 kV lines by ordering A.C.S.R. instead of copper conductors. Thus there will be no excess in the cost of Transmission lines, as a result of award of the order to the two firms at a total cost of Rs. 13.5 lakhs estimated.

15. It is proposed to take ten percent of the cost of the work as security deposit from Messrs. Steel Construction Co., and include the penalty clause for non-completion in time. This is merely a safeguard, in case other arrangements have to be made. It is not ~~improbable~~ improbable that Messrs. Steel Construction Co., Bangalore may not be able to fulfil the contract even if a part of the work is awarded to them as the work is truly difficult, considering the nature of the country and the time factor. And it may be necessary to call in another agency to do the balance of their work.

16. Messrs. India Electric Corporation is a firm of engineers and contractors with their main office at Bombay and a branch at Hubli, and details of the organisation are given in their letter No. Nil dated 18-8-58 enclosed. They are associated with Messrs. Western India Transport & Construction Co. Ltd., and the two firms together have successfully executed some major works in the Grid Department involving 33 kV and 11 kV transmission lines and transport of heavy equipment. Their staff is mostly trained in the organization of ^{Messrs.} ~~Tatas~~, Bombay. They are at present engaged in the Karnatak area as sub-contractors of Messrs. International General Electric Co. on the transport of heavy substation plant, and they have made a very satisfactory job of it, working against

weather and difficulties of transport. They are also engaged on the construction of the 66 kV tower transmission line from Surat to Billimora, and the firm gives reasonable promise of executing this work as successfully as any of the foreign firms which were engaged on transmission line works in India so far, and who have all refrained from tendering for this work.

17. In regard to their rates, their quotation excluding concrete is Rs. 3.91 lakhs for thirtyseven miles, which works out to Rs.10,500/- per mile. Messrs. British Insulated Callender's Cables Ltd. had quoted at Rs.12000/- per mile for the 66 kV line from Surat to Billimora in South Gujarat in 1950. The Surat-Billimora line runs parallel to the road and railway at a short distance, and it involved only 60 ft. high towers at 750 ft. spans in open country. As compared to that, 86 ft. high towers at 1050 ft. spans are employed on the Kavalvad-Hubli and Kavalvad-Dandeli line, and there are difficulties of terrain and transport. Therefore, the rates quoted by Messrs. India Electric Corporation, which are about 12.5% lower than the rates quoted by Callenders for the Surat-Billimora line, are considered reasonable, and all the more so, because security deposit and penalty are attached to the present work, whereas there was no such stipulation in the British Insulated Callender's Cables' tender for the South Gujarat line.

18. The erection of 110 kV transmission line has been provided for in the main administratively approved estimates of the Jog-Karnatak Electric Grid Scheme. If the work is awarded to the above firms as recommended, it is not expected that the estimates will be exceeded on that account, as explained in para.14 above. I, therefore, request Government to accord approval to my proposals and authorise me to place orders on the above two firms as suggested in terms of their tenders, and subsequent letters of clarification attached hereto.

19. The terms of payment of the two firms are;-

i) Messrs. Steel Construction Co., Bangalore -

Bills to be accepted and passed for items of work for which there is separate rate to the extent of 90% of its value. Such Bills to be made regularly once every month. The balance of 10% to be made available at the expiration of six months. (Vide page 2 of their letter of 11-10-1952).

ii) Messrs. India Electric Corporation, Bombay -

Payment is to be made on our monthly bills upto 95% within thirty days from the date of submission of Bills and remaining 5% upon satisfactory completion of the work and on taking over the line. (Vide page 2 of their tender of 30-7-52.)

20. Very early decision is kindly requested as the working season has commenced, and as much should be made of it as possible if the work is to be completed in time. The Jog-Hubli area is particularly susceptible to a long monsoon spell involving cession of major field work from 15th May to 15th October. I shall, therefore, be grateful if orders of the Government are issued with the least possible delay and in any case not later than a fortnight from now authorizing me to accept the tenders of the two firms for the sections given above, as per rates and conditions given in their tenders and subsequent letters. If we delay too long, it is possible that either of the firms may find other work for their organization and facilities and we may be left in a very unsatisfactory position.

R. J. A. Chandan
13/10/52
Chief Engineer.

Encls:-

- 1) Statement of comparison - Original Tenders.
- 2) Statement of comparison of firm and final offers of Steel Construction Co. and India Electric Corporation.
- 3) Tenders of Steel Construction Co. and India Electric Corporation with statements of their financial status and experience.

Handwritten notes and markings on the document include:

- Top left: "V. 1000" and "1000" (possibly a date or reference number).
- Top center: "K" (possibly a letter or code).
- Top right: "1000" (possibly a date or reference number).
- Bottom left: "1000" (possibly a date or reference number).
- Bottom center: "K" (possibly a letter or code).
- Bottom right: "W" (possibly a letter or code).

Submitted.

2. The C.E., B.E.G. has submitted proposals in respect of awarding contracts to firms for erection of 110 KV. transmission lines of the Jog Karnatak Elec. Grid Scheme. The work comprises of five sections viz:-
 Section I - Jog Shirsi.
 Section II - Sirsi-Kavalwad
 Section III - Kavalwad - Hubli
 Section IV - Kavalwad - Dandeli.
 Section V - Sharavati crossing spans.

3. Following four firms have quoted for the 110 KV. tower line from Jog to Hubli and Dandeli -

- (1) National Elec. Co. Bangalore. *Bombay.*
- (2) The Steel Construction Co. Bangalore.
- (3) The India Elec. Corporation, Bombay.
- (4) Patel Elec. Co., Bombay.

No. (4) has quoted for only 2 out of the 5 ^{sections} ~~items~~ of the work. It will be seen from the comparative statt. of rates at p. 11 - ^{ante}, that the quotations of No. (1) above are the lowest. No. (4) is next lower and then comes No. (2). No. (3) has quoted the ^{highest} ~~highest~~ rates and his total quotation is more than double that of No. (1), but No. (1) has intimated later on their inability to undertake the work vide para. 6 of the letter and No. (4) is not considered fit for entrusting the work due to their inexperience and due to the incompleteness of their tender vide para. 7 of the letter. There remain therefore the following two contractors :-

- (1) Steel Construction Co., Bangalore.
- (2) India Elec. Corporation, Bombay.

No. (2) have revised their rates but the total quotation of No. 1 above (Rs. 11,92,280) is 69% that of No. (2) (Rs. 17,34,592), ^{vide} comparative statt. given in para. 10 of the letter. The C.E. is however

not

not in favour of entrusting the whole work to the Steel Construction Co. of Bangalore for the reasons dealt ^{stated} in para. 11 of the C.E.'s letter. He has therefore split up the order between the above two firms so as to make it reasonably economical and safe for Government. Another advantage of this arrangement is that he will have at the same time two contractors in the field so that in case one is unable to fulfil his assignment in time and satisfactorily, the work can be entrusted to the other contractor.

4. He therefore recommends that sections I, II and V (vide statement para. 1 above) valued at a total of about Rs. 8.28 lakhs may be awarded to the Steel Construction Co. and the remaining two sections valued at Rs. 5.22 lakhs may be entrusted to the other contractor. Total cost of the work entrusted to both the contractors comes to Rs. 13.50 lakhs (Rs. 8.28 plus Rs. 5.22). If the whole work is entrusted to the lower tenderer ^{laks.} this work would cost about Rs. 1.6 less. The terms of payment of the lower tenderer vide para. 19 of the letter are also more reasonable. But the C.E. who has a bad experience in awarding work to Southern Indian Firms is not sure of the competency of the Steel Construction Co., Bangalore to complete the work efficiently and in time.

Handwritten note: *Handwritten note: "The India Elec. Corporation are considered by the C.E. to be quite reliable and competent to undertake the work, vide details in para. 16 of the C.E.'s letter."*

5. The India Elec. Corporation are considered by the C.E. to be quite reliable and competent to undertake the work, ^{remarks} vide details in para. 16 of the C.E.'s letter.

Their rates though high are lower than those quoted for similar work by British Insulated Callender's Cables Ltd. who are the specialists in such works vide para. 17 of the letter. The rates of the India Elec. Corporation are considered reasonable by the C.E.

6. The provision in the approved estt. for erection of the line is Rs. 8.64 lakhs, but there will be saving as explained in para. 14 of the letter. There will thus be no excess in cost as a result of awarding contract as proposed by the C.E.

Handwritten mark: *Handwritten mark: "X"*

7. The C.E. has proposed to take 10% of the cost as security deposit from the contractors and to include the penalty clause for non-completion of the work.

8. Completion of the work in time is an important point in this case, vide reasons detailed in item (4) of para. 11 of the C.E.'s letter. The C.E.'s recommendations may therefore be accepted and he may be authorised to place orders on the two firms as suggested by him. The draft put up may be issued after U.O.R. to the F.D.

Through the X.Br. & D.E.(I).

SAM.

24/10/52 X.D.

91. Expenditure is debitable to the head "E.A. Capital Outlay on Ety. Scheme" & will be met from the sanctioned provision of Rs. 75 lakhs for the Jog Power Scheme.

ASCOPE

Secy.

Secy F.D.

18/27/10

The C.E.'s proposals may be accepted. Re (X) pl see pp 7 margin - the saving is due to reduced mileage of 110 km. line -

The C.E. assumes there will be no excess over sanctioned costs. by 27/10/52

IND 30/10

Recd 4/30pm

31/10/52 Secy F.D.

I should like to discuss the case with Secy P.W.D. It seems to me that the proposal is not very fair with Messrs Steel Construction Co. I quite

realize the general misgivings
about a new union. but in view
of the large difference in cost, it
seems to me that it would be
desirable for a small committee
to interview both the parties.

1/2
2/11/52

Secy P.W.D.

41

C.E.B.E.G may be requested to
discuss with me on 12th Nov at 11 A.M.

md
8/11

AS.

K.B.

Resubmitted with neeq. Draft for approval

K.B.
8/11/52

md
8/11/52

AS(III.)

I discussed with Secy., F.D. and as
settled between us I discussed the case with
C.E., B.E.G..

C.E. explained his recommendations
with greater clarification and his proposals
seem acceptable. There are two factors

to

to consider in distributing the work between the two tenderers as proposed. Firstly the time factor which will get us the completion of the work within a season with consequent economies and speedy supply of power. Secondly there is the safety factor. C.E. feels clearly that the Bangalore tenderer is capable enough of putting towers but he is not equally sure of the tenderer's capacity to put up high tension lines for all four sections. Although ~~Bangalore tenderer~~ he would engage Shri Chari as a proper Technical Expert, he has yet to organize equipment, adequate enough for such work. The other tenderer is therefore given the two smaller works in view of his equipment capacity and proved experience. The sections given to the Bangalore tenderer are Kanarese speaking and next to the Jog up to Kavalvad and they constitute the larger part of the work of over 77 route miles (Rs. 8,27,980). The other sections Kavalvad-Hubli and Kavalvad-Dandeli cover 37^{route}/miles and would be given to India Electric Corporation for Rs. 5,21,734 (as against Rs. 3,64,300 of the Bangalore quotation). The Chief-Engineer strongly feels that due to inexperience, the Bangalore firm has quoted very low and may come in loss. He would like to keep the India Electric Corporation as the alternative tenderer to fall back on for any part of the work that the Bangalore tenderer may find himself unable to carry out.

Under the circumstances explained, we may perhaps agree to the award of tenders as proposed.

M. ungal
S. (Pl. Sec. of the)
- case to
run in P.W.D.
17/11

8. For all 5/15 PM
11/11/52
g.s. (Pl. Sec. of the)
11/11
12/11
14/11
15/11

See (11/11/52)
M^x P.W.D.
M¹⁶ F.D.
18/11

See P.W.D.
to discuss
13/11/52

11/11 57586
Discussed
and 9 agree
15/11/52

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~~gover~~
No. GJK 1552-K.

Letter ²¹

177 P.W.D.,
B.C. (B'bay No. 9),
8th - 11-1952.

To
The C.E., B.E.G.

Subject: - Joz. Karnatak Electric Grid Scheme
erection of 110 KV lines -
Award of contracts. P-1.

Refce: - your letter No. T-8/16/31389, dt.
the 14-10-1952.

2. The Secy., P.W.D., desires to discuss the
above case with you on the 12-11-1952
at 11 a.m. ~~Please therefore requested~~
~~for 11-12-1952 as 11-12-1952 is the date~~
~~to be present in the Secy's room on the~~
above date with neq. material for
discussion on the above subject.

D.A. Nil. ^{K. 974.}
8/11/52.

By order etc.,

A.S. to the Govt.

P.W.D.

is
Agree at once today
check with S/C
8/11

IMMEDIATE.

179 23
Letter.

No. GJK 1552 K.

Public Works Department,
Bombay Castle (Bombay No.1),
8th November 1952.

To

The Chief Engineer, Bombay Electric Grid.

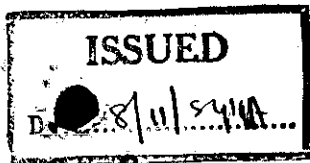
Subject:- Jog-Karnatak Electric Grid Scheme -
Erection of 110 kV lines -
Award of contracts.

.....

Reference: Your letter No. T-8/S.16/31389, dated
the 14th October 1952.

2. The Secretary, Public Works Department, desires to
discuss the above case with you on the 12th November 1952
at 11 A.M. Please therefore make it convenient to see the
Secretary in his office on the date and time mentioned above.

By order of the Governor of Bombay,



2
SAM.
8/11/52.

K. S. H.
8/11/52

Signature
Assistant Secretary to the Government of Bombay,
D.A.-N11. Public Works Department.

V.urgent.
No. GJK 1552 K.

Letter.

197 187
Public Works Department,
Bombay Castle (Bombay No.1),
14 October 1952.

To

The C.E., B.E.G.,

Subject:- Jog - Karnatak Elec. Grid Scheme.
Erection of 110 KV lines.
Award of contractors.

Reference: Your letter No. T-8/S-16/31389, dated
the 14-10-52.

2. Your proposal to accept the tenders of the Steel Construction Co., Bangalore and the India Elec. Corporation, Bombay for Rs. 8.28 lakhs and Rs. 5.22 lakhs respectively as per rates and conditions given in their tenders and subsequent letters are approved and you are authorised to place orders with those firms.

3. The tender papers forwarded by you with your above
letter

letter are returned herewith.

By order of the Govr. of Bombay.

X Deputy Secretary to the Government of Bombay,
D.A.- Tender papers. Public Works Department.

SAM

Ph
24/10/52
copy ~~of~~ with a copy of the letter
under reply forward to

Orders issued after consultation with
Finance Department.
Notes remain with this Department and
can be seen when required.

the ~~FA~~ *FA*
the A.G. Bombay (Tweo. D.D.)

ISSUED
21/11/52

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24/11

Immediate
Letter

No.T.8/S-16/ 33848
Electric Grid Offices,
Mercantile Bank Building, Fort,
Bombay 1: 5th November, 1952.

To

The Secretary to Government,
Public Works Department,
Bombay.

Subject: Jog-Karnatak Electric Grid Scheme -
Erection of 110 kV lines -
Award by contracts. ✓

Reference: My letter No.T.8/S-16/31389,
dated 14-10-1952.

I invite reference to the above letter and request that orders of Government may be communicated early, as the working season has already started and time factor is of essential importance in the programme.

Sanjiv Chaudhary
5/11/52
Chief Engineer

ARK.5.11.52.

✓
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GJKISS

105535

On 26th
Sw. Name
6/17

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5-11-5

Don't see it

AK 1552
1055-25
P.W.D.

KRM
Submitted.

14'

2. The main papers have been submitted to the Secy, F.D. on 31-10-52. As the time factor is of essential importance in this case the F.D. may be requested to return the papers immediately.

As (TH) 7/11/52

Sao
7/11/52

57367

✓ AS F.D. (F)
(8-11-52)
H. V. S. S. S.
8/11

It has been referred to Secy. P.W.D. on 8/11

A-S. P.W.D.

pub.
8/11
Res. to Dir. P.W.D.

Sum. 10/11

4JK/552

P. w. d.
18

KPw
submitted.

2. The main case has been
submitted to the Secy, Fwd, Min,
P. w. d. & Min, Fwd, on 11-11-52

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11-12-52

JOG KARANTAK ELECTRIC GRID SCHEME.

SCHEDULE I.

Erection of 110 kV Transmission Line between
KAVALVAD and HUBLI.

Contractors: M/s. India Electric Corporation, Bombay.

No.	Description.	Provisional quantity.	Unit	Rate for distribution to site, erection, testing & setting to work Rs.	Total. Rs.
1	2	3	4	5	6
1.	Tower footings in concrete foundations including excavation in earth & small boulders and back filling.				
a)	Type 'A' Towers.	92 Nos.	each	360-0-0	33,120
b)	Type 'B' Towers.	7 "	"	480-0-0	3,360
c)	Type 'C' Towers.	2 "	"	720-0-0	1,440
d)	Type 'BT' Towers. (Transposition).	3 "	"	600-0-0	1,800
2.	Tower footings in soft rock foundations including excavations and back filling.				
a)	Type 'A' Towers.	Unit rate.	each	540-0-0	-
b)	Type 'B' Towers.	"	"	720-0-0	-
c)	Type 'C' Towers.	"	"	1080-0-0	-
d)	Type 'BT' Towers.	"	"	900-0-0	-
3.	Tower footings in hard rock foundations including blasting and back-filling.				
a)	Type 'A' Towers.	Unit rate	each	720-0-0	-
b)	Type 'B' Towers.	"	"	960-0-0	-
c)	Type 'C' Towers.	"	"	1440-0-0	-
d)	Type 'BT' Towers.	"	"	1200-0-0	-
4.	Super structure including all work above ground level and fixing insulators and accessories; bird guards, danger and number plates, phase plates as directed.				
a)	Type 'A' Towers.	92 Nos.	each	840-0-0	77,280
b)	Type 'B' Towers.	7 "	"	960-0-0	6,720
c)	Type 'C' Towers.	2 "	"	1200-0-0	2,400
d)	Type 'BT' Towers. (Transposition).	3 "	"	1000-0-0	3,000
5.	6/0.186" AL & 7/0.062" steel (0.1 Sq. " eq. cu.) ASCE conduct- or including laying stringing, tensioning, clamping, & jointing, etc. and fixing vibration dampers or armour rods as directed complete per route mile of three conductors one on each side of Towers.	20 Route Miles	Route Mile	1800-0-0	36,000

1,65,120

P.T.O.

1:	2	3	4	5	6
					B.F. 1,65,120
6. 3/7 AWG Copper weld ground cable including laying, stringing, tensioning, clamping, jointing etc. complete per route mile of line.	20 Route miles.	Route mile	480-0-0		9,600
7. Grounding of Towers excluding provisions of pipes and connections but including coke tinned copper tape etc. complete.	104 Nos.	each	180-0-0		18,720
8. Fixing anticlimbing devices on different types of Towers:					
a) Type 'A' Towers.	10 Nos.	each	80-0-0		800
b) Type 'B' Towers.	7 Nos.	"	100-0-0		700
c) Type 'C' Towers.	2 Nos.	"	110-0-0		220
d) Type 'BT' Towers. (Transposition).	3 Nos.	"	120-0-0		360
9. a) 1:3:6 concrete for foundations of towers including supply of all aggregates upto 1 1/2" size and curing.	14280 cft. (approx)	100 cft.	480-0-0		68,544
b) 1:3:6 concrete for foundations for ~~small~~ encasing stubs including supply of all aggregates of 1" to 1/2" and curing.	Unit-rate	100 Cft.	540-0-0		-
10. Erection of 10 ft. extension 'A' Type.	1 No.	each	240-0-0		240
'B' Type.	1 No.	each	480-0-0		480
11. Drilling holes in rock (1" dia).	Unit-rate	Rft.	9-0-0		-
12. Drilling holes 1 1/2" dia. in rock.	-do-	Rft.	12-0-0		-
13. Excavation and back filling in ordinary soil and small boulders.	-do-	100 Cft.	35-0-0		-
14. Excavation and back filling in soft rock and boulder.	-do.	-do-	60-0-0		-
15. Excavation and back filling in hard rock.	-do-	-do-	200-0-0		-
16. Cutting stub angles & drilling necessary holes for fitting rock anchor plates and grouting anchor bolts.					
'A' Type.	Unit-rate	each	200-0-0		
'B' Type	"	"	250-0-0		
'C' Type	"	"	300-0-0		
'BT' Type.	"	"	250-0-0		
17. Constructing dry stone riverment walls in stone locally available within a lead of 3 to 4 miles.	Unit-rate	100 Cft.	120-0-0		
18. Earth work in embankment	Unit-rate	100 Cft.	30-0-0		

TOTAL Rs. 2,64,784

JOG KARANTAK ELECTRIC GRID SCHEME.

SCHEDULE II.

Erection of 110 kV transmission line between
Kavalavad and Dandeli.

Contractors: M/s. India Electric Corporation, Bombay.

No.	Description.	Provisional quantity	Unit	Rate for distribution to site, erection, test-ing & setting to work Rs.	Total. Rs.
1	2	3	4	5	6
1.	Tower footings in concrete foundations including excavation in earth and small boulders and back filling.				
	a) Type 'A' Towers.	78 Nos.	each	420-0-0	32,760
	b) Type 'B' Towers.	5 "	"	700-0-0	3,500
	c) Type 'C' Towers.	3 "	"	840-0-0	2,520
	d) Type 'BT' Towers.	3 "	"	720-0-0	2,160
2.	Tower footings in soft rock foundations including excavations and back filling.				
	a) Type 'A' Towers.	Unit-rate	each	630-0-0	-
	b) Type 'B' Towers.	"	"	1050-0-0	-
	c) Type 'C' Towers.	"	"	1260-0-0	-
	d) Type 'BT' Towers.	"	"	1080-0-0	-
3.	Tower footings in hard rock foundations including blasting and back filling.				
	a) Type 'A' Towers.	Unit-rate	each	840-0-0	-
	b) Type 'B' Towers.	"	"	1400-0-0	-
	c) Type 'C' Towers.	"	"	1680-0-0	-
	d) Type 'BT' Towers.	"	"	1440-0-0	-
4.	Super structure including all work above ground level and fixing insulators and accessories, bird guards, danger plates as directed.				
	a) Type 'A' Towers.	78 Nos.	each	960-0-0	74,880
	b) Type 'B' Towers.	5 Nos.	"	1150-0-0	5,750
	c) Type 'C' Towers.	3 "	"	1500-0-0	4,500
	d) Type 'BT' "	3 "	"	1200-0-0	3,600
	(Transposition).				
5.	6/0.186" Al+7/0.062" Steel (0.1 Sq. " eq. cu.) ACSR Conductor including laying, stringing, tensioning, clamping jointing etc. and fixing vibration dampers xx or armour rods as directed complete per route mile of three conductors on one side of Tower.	17 Route miles	Route mile	2000-0-0	34,000
6.	3/7 AWC Copper weld ground cable including laying, stringing, tensioning, clamping, jointing etc. complete per route mile of line.	17 route miles	route mile	700-0-0	11,900

(9.3)

1	2	3	4	5	6
7. Grounding of Towers excluding provisions of pipes and connections but including coke, tinned copper tape etc. complete.	89 Nos.	each	180-0-0	16,020	
8. Fixing anticlimbing devices on different types of Towers.					
a) Type 'A' Towers.	10 Nos	each	100-0-0	1,000	
b) Type 'B' Towers.	5 "	"	120-0-0	600	
c) Type 'C' Towers.	3 "	"	120-0-0	360	
d) Type 'BT' Towers. (Transposition).	3 "	"	150-0-0	450	
9. a) 1:3:6 concrete for foundations of towers including supply of ~~xxxx~~ all aggregates upto 1 1/2" size and cutting.	12450 Cft.	100 cft.	500-0-0	62,250	
b) 1:3:6 concrete for foundations for encasing stubs including supply of all aggregates of 1/2" to 3/4" and curing.	unit rate	100 cft.	550-0-0	-	
10. Erection of 10 ft. extension.					
'A' Type.	1 No.	each	300-0-0	300	
'B' Type.	1 "	"	400-0-0	400	
11. Drilling holes in rock (1" dia.)	Unit-rate	ft.	9-0-0	-	
12. Drilling holes 1 1/2" Dia. in rock.	"	"	12-0-0	-	
13. Excavation and back filling in ordinary soil and small boulders.	Unit-rate	100 Cft.	35-0-0		
14. Excavation and back filling in soft rock and boulder.	"	"	60-0-0	-	
15. Excavation and back filling in hard rock.	"	"	200-0-0	-	
16. Cutting stub angles and drilling necessary holes for fitting rock anchor plates & grouting anchor bolts.					
A type.	Unit-rate	each	200-0-0	-	
B Type.	"	"	250-0-0	-	
C Type.	"	"	300-0-0	-	
BT Type.	"	"	250-0-0	-	
17. Constructing dry stone rivetment walls in stone locally available within a lead of 3 to 4 miles.	Unit-rate	100 cft.	120-0-0		
18. Earth-work in embankment.	Unit-rate		30-0-0		

TOTAL Rs. 2,56,950

To

Messrs. India Electric Corporation,
117-118 Churchgate Reclamation,
Bombay 1.

Subj- Jog Karnatak Electric Grid Scheme
Erection of 110 kV Transmission lines.

Ref:- 1) Our specification No. T.8/S-16
2) Your tender dated 30-7-1952.
3) Our letter No. T.8/S-16/23203
dated 4-8-1952.
4) Your letter No. W11
dated 18-8-1952.
5) Your letter No. 298/52
dated 11-10-1952.

Dear Sirs,

With reference to your tender in response to our Specification T.8/S-16 and subsequent correspondence referred to above and the discussions you had with Superintending Engineer (Transmission), I accept your rates for distribution to site, erection, testing and setting to work the following 110 kV transmission line sections subject to the ^{comments} amendments and conditions set forth herein.

Item (1) Section III of Specification T.8/S-16 Kavalvad to
Nahli 110 kV about 20 miles.

Item (2) Section IV of specification T.8/S-16 Kavalvad to
Randeli 110 kV about 17 miles.

The contracts for other sections are being awarded ^{elsewhere}.

2. Prices.
(for other sections are being awarded elsewhere). The unit rates quoted by you in your tender are accepted for the above sections as given in the enclosed schedules I and II. These rates are firm and independent of any fluctuations in respect of labour, materials, petrol, taxes on transport vehicles etc. required for erection. The quantities given in the enclosed schedules are provisional and may be increased or decreased if found necessary when the full survey data are available and for such changes as may be necessary during the period of contract. The unit rates quoted are not subjected to any variation on account of the above variations in quantities.

Based on the provisional quantities in the schedules, the total value of the order will be as under:

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	Erection	Concrete	Total
1) Kavalvad-Mubli Section	1,98,240	62,544	2,64,784
2) Kavalvad-Dandoli Section	1,94,700	62,250	2,56,950
Total Rs.	3,90,940	1,20,794	5,21,734

Rupees five lakhs, twenty one thousand and, seven hundred and thirty four.

All stated above, this amount will be adjusted on completion of the work based on the actual work carried out.

3. Completion Period and Penalty Clause:

We note from your tender that the period of completion for these sections is 12 working months from the date of ^{his} order. For this purpose, only the monsoon period will be considered as non-working period. It is essential that the line is completed by the promised period. Otherwise the penalty clause No. 32 of the General Conditions of contract will be enforced as agreed by you.

The profile and route maps covered by this order will be supplied to you by the Executive Engineer (Civil) Mubli when ready for preparing the final schedule and for purposes of setting out the line in accordance with clause 9 Section II of our specification.

4. Delivery of Materials:

The insulators and accessories have already arrived at our stores at Mubli as mentioned on page 25 of our specification and you may take delivery of these as and when required. About 500 tons of tower components and stubs have already been fabricated and galvanised and will be despatched as wagons are available ~~the~~ in the next few weeks. At least 50 towers A type are expected to be supplied by February 1953. The major portion of the power and ground conductors are expected to be received by February 1953.

For materials which are yet to be received the railways receipts as and when received will be handed over to your representative and you should take delivery of materials and arrange for the clearance of the materials of the wagons ^{from}. You are responsible for taking delivery of the materials in time and any demurrage and other charges, incurred for not clearing the materials in time will be to your account.

5. Terms of Payment.

Bills will be accepted once a month and payment will be made as under:

- 1) 95% of the value of the work done
- 2) Balance of 5% will be made up on satisfactory completion and taking over of the line

6. Security Deposits

In accordance with General Conditions of contract and as agreed to by you in your letter dated 18-8-1952, you should deposit Rs. 52,175/- being ten per cent (10%) of the value of the order as security deposit for due performance of contract.

7. Guarantee during maintenance periods

If during 12 calendar months ^{from} the date of handing over of the lines after completion of tests and setting to work, the erected lines are found to be defective in workmanship, they should be rectified free of charge immediately after being brought to your notice vide clause 36 of the General Conditions of contract.

8. Replacement in case of loss, damage or breakage.

You should fully examine the material when it is being handed over to you either at the Grid Stores or at the Railway Station as the case may be and you will be responsible for the material once it is handed over to you till the time of handing over the lines after erection and setting to work. If after handing over to you, any material is found broken or lost during transit and erection, you will have to replace them at your cost.

9. Extra works

For any items of work for which rates are not given in the enclosed schedules, payments will be made on actual cost plus 5% as mentioned under clause No. 4 Section I of the specification excepting for the following items which will ^{be} paid as under as tendered by you.

- a) Jungle cutting and dewatering if required.

Actuals + 20%

- b) stub setting in wet locations 50% over the charges for dry locations.

Actual cost shall include cost of material, as approved by this Department and labour and petty supervision charges but not

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changes for the higher staff paid on monthly or contract basis.

10. Tools:

Necessary tools and tackles required for erection work have to be provided by the contractor.

11. Erection and Supervisions

The works covered by this contract shall be carried out as per the latest and best transmission line practice and as per our specification under the supervision of a Senior Engineer who has had sufficient experience in the construction and work connected with H.T. transmission lines whose credentials should be acceptable to this Department. The names, qualifications and experience of all important staff that you employ on this contract may please be forwarded for our approval.

12. Foundations and classification of soils

Approval of the foundations to be adopted for dry and wet locations will be intimated to you separately by the Executive Engineer (Civil) Mahli who is in charge of the work. Please note that the type of soil and other details regarding foundations to be adopted at individual locations will also have to be settled by you in consultation with that officer. The cost of concrete will be paid for at unit rate quoted for by you. Cement will be supplied to you by the Department at the stock rate of Rs. 110/- per ton at the various stores mentioned in the schedule A of the specification. Empty cement bags will have to be returned to the Department in good condition. In case of short return or damaged empties, they will be charged at the rates fixed by the Department.

13. Earthing:

Earthing of the tower will have to be carried out as per specification and it is noted that your price includes the supply of copper tape, coke etc. The size and quality of the tape proposed to be used by you, should be got approved by this Department.

14. Construction programme and progress reports:

A programme of construction based on the delivery of materials given under para 4 above should be drawn and sent for our approval. Fortnightly progress reports should be forwarded indicating the position with regard to distribution and erection

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of all materials and equipment and the reports should be sufficiently informative and should be sent to the Executive Engineer (Civil) Hubli in duplicate as well as one copy to this office addressed to Superintending Engineer (Transmission).

15. Permits and priorities:

This Department will assist you as far as possible in the matter of obtaining the necessary permits and priorities of the material, tools, Kerosene, petrol, food and also for Railway booking. You should however contact the appropriate authorities for expediting the disposal of the matter.

16. General Conditions:

Except where otherwise agreed to, you should abide by the "General Conditions of contract for plant, machinery and manufactured equipment," and ⁱⁿ accordance with our specification No. T.8/S-16.

17. Completeness of tenders:

As specified under clause 5, Section I, the contractor shall not claim any extra amount for any minor work, not specifically included in the schedule, but which are necessary for the completeness of the erection work. Only for additional items ~~to~~ of work extra charges will be paid as per para 9 above.

18. Contract documents:

A formal agreement will have to be entered into in respect of the contract, and contract documents will be forwarded to you in due course ^{for} by signature.

19. Construction and handing over:

The Executive Engineer (Civil); Hubli will be in charge of the works, covered by this contract. All matters relating to field work, completion and handing over, payments etc, will be referred to that officer. All correspondence of technical nature, prices quantities should be addressed to this Office in duplicate.

Please acknowledge the receipt of the ^{order} letter early.

Yours faithfully,

[Signature]
Chief Engineer.

Encl: Schedule I & II.

✓ Copy forwarded with compliments to Secretary, Public Works Department, with reference to Government letter No. G.K. 1652 K dated 29-11-1952. P.T.G.

2). Copy to Accountant General, Bombay.

1/11/52

5/22/52

5/22/52 VIL. 29/11/52.

- 1 - 20 JOG KARNATAK ELECTRIC GRID SCHEME:

SCHEDULE I.

Erection of 110 kV Transmission Line Between
Jog and Sirsi.

Contractors: M/s Steel Construction Company, Bangalore.

Sr. No.	Description.	Provisional Quantity.	Unit.	Rate for dis-tribution to site, erection, testing and setting to work.	Total.
1.	2.	3.	4.	5.	6.

1. Tower footings in concrete foundations including excavation in earth and small boulders and back filling.

a) Type 'A' Towers.	153 Nos.	No.	265-0-0	40,545
b) " 'B' "	15 Nos.	No.	510-0-0	7,650
c) " 'C' "	6 "	"	800-0-0	4,800
d) " 'BT' "	3 "	"	510-0-0	1,530
(Transposition)				
e) Special Towers.	Unit rate.	per ton.	480-0-0	
(please quote rate per ton).			plus actuals for excavation.	

2. Tower footings in soft rock foundations including excavations and back fillings.

a) Type 'A' towers.	Unit rate	each	490-0-0
b) " 'B' "	"	"	950-0-0
c) " 'C' "	"	"	1,500-0-0
d) " 'BT' "	2	"	950-0-0

3. Tower footings in hard rock foundations including blast-
ing and back filling.

a) Type 'A' Towers.	Unit rate.	each	925-0-0
b) " 'B' "	"	"	1,800-0-0
c) " 'C' "	"	"	2,800-0-0
d) " 'BT' "	"	"	1,800-0-0

4. Super structure including all work above ground level and fixing insulators and accessories; bird guards, phase plates danger and number plates, phase plates as directed.

a) Type 'A' Towers.	153 Nos.	No.	550-0-0	84,150
b) " 'B' "	15 "	"	780-0-0	11,700
c) " 'C' "	6 "	"	1,150-0-0	6,900
d) " 'BT' "	3 "	"	960-0-0	2,880
(Transposition)				
e) Special towers.	unit rate	per ton	400-0-0	
(please quote rate per ton).				

5. 6/0.186" AL+7/0.062" Steel 33 Route 600-0-0 19.800
(0.1 sq.in. ACSR conductor in- Route mile.
cluding, laying, Stringing, tension- miles.
ing, clamping, jointing (mtd)

..... 2. 3. 4. 5. 6.

Contd.

B.F. 1,79,955

etc. and fixing vibration dampers or armour rods as directed complete per route mile of three conductors on one side of Tower.

3/7 AWG Copper weld ground cable including laying, stringing, tensioning, clamping, jointing etc. complete per route mile of line:	route miles.	route mile.	200-0-0	6,600
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7. Grounding of Towers excluding 177 Nos. provisions of pipes & connections but including coke tinned copper tape etc. complete.	each	100-0-0	17,700
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8. Fixing anticleimbing devices on different types of Towers:

a) Type 'A' Towers.	20 Nos.	each	50-0-0	1000
b) Type 'B' Towers.	15 "	"	50-0-0	750
c) Type 'C' Towers.	6 "	"	50-0-0	300
d) Type 'BTM' "	3 "	"	50-0-0	150
(Transposition).				

9(a) 1:3:6 concrete for foundations of towers including supply of all aggregates upto 1 1/2" size and curing.	24945 cft. (Approx.)	cft.	6-0-0	1,49,670
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(b) 1:3:6 concrete for foundations for encasing stubs including supply of all aggregates of 1/2" to 1 1/2" & curing.	Unit rate.	cft.	8-0-0
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10. Erection of 10 ft. extension 'A' type.	2 Nos.	Each	200-0-0	400
'B' type.	1 No.	"	250-0-0	250

11. Drilling holes in rock (1" dia)	Unit rate.	R.Ft.	4-0-0	-
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12. Drilling holes 1 1/2" Dia. in rock	"	R.Ft.	6-0-0	-
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13. Excavation and back filling in ordinary soil and small boulders.	Unit rate.	c.yd.	12-0-0	-
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14. Excavation and back filling in soft rock and boulders.	"	"	24-0-0	-
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15. Excavation and back filling in hard rock.	"	"	48-0-0	-
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16. Cutting stub angles and drilling necessary holes for fitting rock anchor plates and grouting anchor bolts:

Type.	Unit rate	leg.	16-0-0	-
C type	"	"	20-0-0	-
BT "	"	"	25-0-0	-
	"	"	20-0-0	-

17. Construction wall of dry stone rivet-available stone locally 3 to 4 miles	Unit rate.	C.yd.	200-0-0	-
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18. Earth work in embankment

JOG KARNATAK ELECTRIC GRID SCHEME.

Schedule II.

Erection of 110 KV transmission line between
Sirsi and Kaviwad.

Contractors: M/s Steel Construction Company, Bangalore.

No.	Description.	Provisional Quantity	Unit.	Rate for distri- bution to site, Erection, Testing and setting to work:	Total
1.	2.	3.	4.	5.	6.

1. Tower footings in concrete foundations including excavation in earth & small boulders and back filling.

a) Type 'A' towers.	201 Nos.	each	265-0-0	53,265
b) Type 'B' towers.	10 "	"	510-0-0	5,100
c) Type 'CB' towers.	5 "	"	800-0-0	4,000
d) Type 'BT' towers, (Transposition).	6 "	"	510-0-0	3,060

2. Tower footings in soft rock foundations including excavations and back filling.

a) Type 'A' towers.	Unit rate	each	490-0-0	-
b) " 'B' "	"	"	950-0-0	-
c) " 'C' "	"	"	1500-0-0	-
d) " 'BT' "	"	"	950-0-0	-

3. Tower footings in hard rock foundations including blasting and back filling.

a) Type 'A' Towers.	Unit rate.	each	925-0-0	-
b) " 'BT' "	"	"	1,800-0-0	-
c) " 'C' "	"	"	2,800-0-0	-
d) " 'BT' "	"	"	1,800-0-0	-

Structure including work above ground level and fixing insulators and accessories; bird guards, danger and number plates, phase plates as directed.

a) Type 'A' towers.	201 Nos.	each	550-0-0	1,10,350
b) " 'B' "	10 Nos.	"	780-0-0	7,800
c) " 'C' "	5 "	"	1,150-0-0	5,750
d) " 'BT' "	6 "	"	960-0-0	5,760
(Transposition.)				

0.8/0.186" Al-7/0.062" steel (0.8 sq. m. eq. cu.) ACSSR Conductor including laying, stringing, tensioning, clamping, joining etc. and fixing vibration dampers or armour rods as directed complete per route mile of three conductors on one side of Tower

1. route miles.	route mile	600-0-0	24,600
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1.	2.	3.	4.	5.	6.
				B.F.	2,19,885
6.	3/7 AWG Copper weld ground cable including laying, stringing, tensioning, clamping, jointing etc. complete per route mile of line:	41 route miles.	route mile	200-0-0	8,200
7.	Grounding of Towers excluding provisions of pipes and connections but including coiled copper tape etc. complete.	222 Nos.	each	100-0-0	22,200
8.	Fixing antilimbing devices on different types of Towers:				
a)	Type 'A' towers.	25 Nos.	each	50-0-0	1,250
b)	" 'B' "	10 "	"	50-0-0	500
c)	" 'C' "	5 "	"	50-0-0	250
d)	" 'BT' "	6 "	"	50-0-0	300
	(Transposition).				
9.(a)	1:3:6 concrete for foundations of towers including supply of all aggregates upto 1 1/2" size and curing.	30,185cft (Approx)	cft.	6-0-0	1,81,110
(b)	1:3:6 concrete for foundations for encasing stubs including supply of all aggregates of 1/2" to 3/4" & curing.	Unit rate	cft.	8-0-0	-
10.	Erection of 10 ft. extension.				
	'A' type.	2 Nos.	each	200-0-0	400
	'B' type.	1 No.	each.	250-0-0	250
11.	Drilling holes in rock (1" dia)	Unit rate.	R.ft.	4-0-0	-
12.	Drilling holes 1 1/4" Dia. in rock	"	"	6-0-0	-
13.	Excavation and back filling in ordinary soil and small boulders	"	C.yd.	12-0-0	-
14.	Excavation and back filling in soft rock and boulders.	"	"	24-0-0	-
15.	Excavation and back filling in hard rock.	"	"	48-0-0	-
16.	Cutting stub angles & drilling necessary holes for fitting rock anchor plates and grouting anchor bolts:				
	A type	Unit rate	each	16-0-0	-
	B Type	"	"	20-0-0	-
	C Type	"	"	25-0-0	-
	BT Type.	"	"	20-0-0	-
17.	Constructing dry stone rivetment walls in stone locally available within a lead of 3 to 4 miles.	Unit rate.	c.yd.	200-0-0	-
18.	Earth work in Embankment.	"		20-0-0	-
Total Rs..				4,34,345-0-0	

JOG KARNATAK ELECTRIC GRID SCHEME.

SCHEDULE III

ERECTION of the 110 K.V. Transmission Line across the Sharavathi River involving special Towers near Mahatma Gandhi Power House at Jog.

Contractors: M/s Steel construction company, Bangalore.

No.	Description,	Provisional Quantity.	Unit.	Rate for dis-tribution to site, Erection testing and setting to work:	Total
1.	2.	3.	4.	5.	6.
1.	Transporting all line materials from Talaguppa Railway Stn. to 1st Special Tower on the bank of Sharavathi, opposite to Jog Power House.	Tons:10	per ton	500-0-0	5,000
2.	Transporting all line materials from Talaguppa Rly. Stn. to 2nd special tower on the top of the gorge.	tons:10	per ton	300-0-0	3,000
3.	Excavation and back fill-ing in soft rock and boulders:	1000 cft.	c.yd.	40-0-0	1,480
4.	Excavation and back filling in hard rock.	unit rate	c.yd.	80-0-0	
5.	Excavation and back filling in ordinary earth	1000 cft.	c.yd.	25-0-0	925
6.	Stub setting including fixing and levelling templates etc. for special towers.	2 tons	per ton of stub steel.	400-0-0	800
7.	Erection of superstructure.	Tons 20	per ton	400-0-0	8,000
8.	Erection of Insulators:				
	a) Erection of single tension insulators and accessories on the substation structure at Jog Power House.	3 sets.	per set	5-0-0	15
	b) Erection of double tension insulators and accessories on the two special towers for Jog-gorge.	16 sets.	per set	15-0-0	240
9.	Erection of all three conductors: (size: 6/0.186" Al + 7/0.062" steel 0.1 sq. in. copper) including laying, stringing jointing etc. complete for the first two spans from the Jog power House:	Lot	Lot	3000-0-0	3,000

P.T.O.

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1.	2.	3.	4.	5.	6.
				B.F.	22,462
10. Erection of ground cable size: Lot	Lot.	1000-0-0			1,000
6/0.186" Al+7/0.062 steel i.e. 10.1 sq" Copper equivalent A.C.S.R. including laying, stringing, jointing, etc. complete for the first two spans from the Jog Power House.					
11. Grounding of special Towers .	2 Nos.	per tower	100-0-0		200
excluding provision of pipes connections, but including coke, tinned copper tape etc.					
12. Erection of duplicate stack	2 Nos.	per tower	600-0-0		1,200
bridge damper and all other minor accessories such as Danger and number plates, phase plates, bird guards etc. at each tower.					
13. a) 1:3:6 Cement concrete	1200 cft.	cft.	10-0-0		12,000
with shuttering for founda- tions of towers including supply of all aggregates upto 1 1/2" size and curing.					
b) 1:3:6 cement concrete for	Unit rate.	cft.	20-0-0		
foundations for encasing stubs including supply of all aggregates of 3/4" to 1 1/2" and curing.					
14. Constructing dry stone	Unit rate.	c.yd.	200-0-0		
revetment walls in stone locally available.					
15. Earth work in Embankment.	Unit rate.	c.yd.	40-0-0		

Total Rs. 36,860/-

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No.T.8/C-32/3686e
Electric Grid Offices,
Mercantile Bank Building,
Fort, Bombay 1 : Dated 24 November, 1952.

To

Messrs. Steel Construction Co. Ltd.,
Hardinge Road,
Bangalore 4.

Dear Sirs,

Sub:- Jog-Karnatak Electric Grid Scheme -
Erection of 110 kV Transmission lines.

Ref:- i) Our Specification No.T.8/S-16.
ii) Your ~~XXXXXXXX~~ tender No.227 dated
29-7-52.
iii) Our letter No.T.8/S-16/23203 dated
4-8-52.
iv) Your letter No.389 dated 16-8-52.
v) Your letter No.722 dated 27-9-52.
vi) Our letter dated 30-9-52.
vii) Your letter dated 11-10-52.

With reference to your tender in response to our specification T.8/S-16 and subsequent correspondence referred to above and the discussions you had with the undersigned as Superintending Engineer(Transmission), I accept your rates for distribution to site, erection and testing and setting to work the following 110 kV transmission line sections subject to the comments and conditions set forth herein.

Item 1.	Section (I) of Specification	- Jog to Sirsi 110 kV
		about 33 miles.
" 2.	" (II) "	" - Sirsi to Kavalvad -
		about 42 miles.
" 3.	" (V) "	" - Sharavathi river
		crossing.

The contracts for other Sections are being awarded elsewhere

2. Prices.- The revised unit rates quoted by you in your letter dated 11-10-52 are accepted for the above sections as given in the enclosed schedules I, II and III. These rates are firm and independent of any fluctuations in the rate of labour, materials, petrol, taxes on transport vehicles etc, required for erection. The quantities given in the enclosed schedule are provisional and may be increased or decreased if found necessary when the full survey data are available and ^{for} ~~fix~~ such changes that may be necessary during the period of Contract. The unit rates accepted are not

subject to any variation on account of the above variation in quantities.

Based on the provisional quantities in the schedules, the total value of the order will be as under:-

Section	Erection	Concrete	Total
	Rs.	Rs.	Rs.
1) Jag-Sirsi Section	2,07,105	1,49,670	3,56,775
2) Sirsi-Kavalvad "	2,53,235	1,81,110	4,34,345
3) Sharavati River Crossing	24,860	12,000	36,860
<u>Total</u>	<u>4,85,200</u>	<u>3,42,780</u>	<u>8,27,980</u>
Rupees eight lakhs, twenty seven thousand nine hundred and eighty only.			

As stated above, this amount will be adjusted on completion of the work based on the actual work carried out.

3. Completion period and penalty clause.- We note from your letter dated 11-10-52 that you require six weeks from the date of receipt of plans and profiles for making a fair amount of survey in order to commence stub-setting and the period of completion for these sections is fortyeight working weeks thereafter. For this purpose, only the monsoon period will be considered as non-working period. It is essential that the line is completed by the promised period. Otherwise, the penalty clause No.32 of the General Conditions of Contract will be enforced as agreed to by you.

The profiles and route maps covered by this order will be supplied to you by the Executive Engineer(Civil), Hubli when ready for preparing the final schedule, and for purposes of setting out of the line in accordance with clause (9), Section II of the specification.

Delivery of materials.- The insulators and accessories have already arrived at our stores at Haveri and Hubli as mentioned on page 342 of the specification and

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you may take delivery of these as and when required. About 500 tons of tower components and stubs are already fabricated and galvanised and will be despatched as soon as wagons are available in the next few weeks. At least 150 towers of 'A' type are expected to be supplied by February, 1953. The major portion of the power and ground conductors are expected to be received by February, 1953.

For the materials which are yet to be received, the railway receipts as and when received will be handed over to your representative and you should take delivery of the materials and arrange for the clearance of the materials from wagons. You are responsible for taking delivery of the materials in time and any demurrage and other charges incurred for not clearing the materials in time will be to your account.

5. Terms of payment.- Bills will be accepted once a month and payment will be made as under:-

- 1) 90% of the value of the work done for items of work for which there is a separate rate.
- 2) The balance 10% will be paid at the expiration of six months ^{or} after the date of satisfactory completion taking over of the line, whichever is later.

6. Security deposit.- In accordance with "General Conditions" and agreed to by you in your letter No. 722 dated 27-9-52, you would deposit in this office Rs. 52,800/- being 10% of the value of this order as security deposit for due performance of contract.

7. Guaranteeing Maintenance Period.- If during twelve calendar months from the date of handing over of the lines after completion of tests and setting to work, the erected lines are found to be defective in workmanship, they should be rectified free of charge immediately after being brought to notice, vide clause 36 of the General Conditions of Contract.

-4- 205

8. Replacement in case of loss damage or breakage.-

You should fully examine the material when it is being handed over to you either at the Grid stores or at the Railway station as the case may be and you will be responsible for material once it is handed over to you till the time of handing over the lines after erection and setting to work. If after handing over to you, any material is found broken or lost during transit and erection, you will have to replace them at your cost.

9. Extra Work.- For any items of work for which rates are not given in the enclosed Schedules, payments will be made on actual cost plus 10% as mentioned in your tender dated 11-10-52. Actual cost shall include cost of material, as approved by this department and labour and petty supervision charges, but not charges for the higher staff paid on monthly or contract basis.

10. Tools.- Necessary tools, and tackle required for survey and erection work has to be provided by the contractor.

11. Erection and Supervision.- The works covered by this Contract should be carried out as per the latest and best transmission line practice and as per our specification under the supervision of a Senior Engineer who has had sufficient experience in the construction and work connected with E.H.T. transmission lines, whose credentials should be acceptable to this Department. The names, qualifications and experience of all important staff that you are employing on this contract may please be forwarded early for our approval.

12. Foundations and Classification of Soil.- Approval of the foundations to be adopted for dry and wet locations will be intimated to you separately by the Executive Engineer (Civil), Hubli who is in charge of this work. Please note that the type of soil and other details regarding foundation to be adopted at individual locations will also have to be settled by you in consultation with

that officer. The cost of concrete will be paid for at the unit rate quoted for by you. Cement will be supplied to you by the department at the stock rate of Rs.110/- per ton at the various stores mentioned in the Schedule 'A' of the specification. Empty gunny bags will have to be returned to the department in good condition. In case of short return or damaged empties, they will be charged at the rates fixed by the Department.

13. Earthing.- Earthing of the tower will have to be carried out as per specification and it is noted that your price includes the supply of copper tape, etc. etc. The size and quality of the tape proposed to be used by you should be got approved by this department.

14. Construction Programme and Progress Report.- As you had stated that the programme of construction given in your letter No.722 dated 27-9-52 was tentative, please forward early a programme of construction based on the delivery of materials given under para.(4) above for our approval. Fortnightly Progress reports should be forwarded indicating the position with regard to distribution and erection of all materials and equipment. The reports should be sufficiently informative and should be sent to the Executive Engineer(Civil), Hubli in duplicate as well as one copy to this office, addressed to Superintending Engineer(Transmission).

15. Permits and Priorities.- This department will assist you as far as possible in the matter of obtaining the necessary permits and priorities of the materials, tools, Kerosene, Petrol, food, and also for Railway booking. You should, however, contact the appropriate authorities for expediting the disposal of the matter.

16. General Conditions.- Except where otherwise agreed to, you should abide by the "General Conditions of Contract for Plant, Machinery and Manufactured equipment" and in accordance with our specification No.T.2/S-16.

17. Completeness of tender.- As specified under clause (5) of Section I, the contractor shall not claim any extra amounts for any minor work, not specifically included in the schedule but which are necessary for the completeness of the erection work. Only for additional items of work, extra charges will be paid as per para.9 above.

18. Contract document.- A formal agreement will have to be entered into in respect of this contract and contract documents will be forwarded to you in due course for signature.

19. Construction and handing over.- The Executive Engineer(Civil), Hubli will be in charge of the works covered by this contract. All matters relating to field work, completion and handing over, payments etc. will be referred to that officer. All correspondence of technical nature, prices, quantities should be addressed to this office in duplicate.

Please acknowledge the receipt of this order letter early.

Yours faithfully,

T. S. N. S. N. S. N.
Chief Engineer.

Encl:- Schedules I, II and III.

Copy forwarded with compliments to -

✓ 1) Secretary, Public Works Department, with reference to Government letter No.G.J.K.1552K dated 20-11-52.

2) Accountant General, Bombay.

3) Accounts Officer, Electric Grid.

4) Executive Engineer(Civil), Reg-Karnatak Electric Grid Division, Hubli, in duplicate.

Encl:- As above.

RSC/-
28.11.52.

231

K.Pr.

As per g.l. No. GJK 1552k, dt. 20-11-52, the C.E., B.E. G., was authorized to place orders with the steel const. co., Bangalore & the Indian elec. corporation, Bombay, for Rs. 8.28 lakhs & Rs. 5.22 lakhs resp. in conn. with the work of erecting 110 KV lines at Jaj-Karnatak el. Grid Scheme.

The C.E. has accordingly accepted the rates of the above firms at the total values of Rs. 8,27,980/- and Rs. 5,21,734/- resp. No

further action is now neeq. on these pts.

Thro: X.Pr. & D.E.(I).

St. Phadke
w/ll

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10-12-52

S.S.I.
19.12.52

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24/12

D.S.(SSE)

kl
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26/12

Letter.

No. T.8/E-20/ 35121
Electric Grid Offices,
Mercantile Bank Building, Fort,
Bombay 1. ~~October~~ 1952.

17. 11.

To

The Secretary to Government of Bombay,
Public Works Department,
Bombay.

Subject:- Jog Karnatak Electric Grid Scheme -
Estimates for Substations.

Government under G.R.No.GJK/1551 dated 18-6-51

have administratively approved the above scheme estimated to cost Rs.213.06 lakhs. A sum of Rs.64.16 lakhs has been provided for substations. The corresponding amount exclusive of the establishment, Head office and general charges works out to Rs.59.14 lakhs. Detailed estimates have now been prepared for substations. The total works out to Rs.60.58 lakhs as against Rs.59.14 lakhs originally approved. This exceeds the administratively approved estimate for sub-stations by Rs.7.44 lakhs or about 13%. This increase is mainly due to the increase in the cost of the equipment as explained below.

It has to be mentioned in this connection that this contract was originally being negotiated by D.G.S & D. on behalf of this Department vide letter No. 2004/36.El(I) dated 23/12/49 from Secretary to the Govt. of Bombay, P.W.D., to the Electrical Commissioner, Bombay. M/s International General Electric Co. (India) Ltd., originally quoted \$ 7,62,801 F.A.S. (firm price) till 30th Sept 1950 to the Director General of Supplies & Disposals. Subsequently since the terms and conditions of the D.G.S & D. were not acceptable to M/s I.G.E.Co., the negotiations failed. It was then proposed to take up the negotiations with the Company directly vide letter No. T.8/C-2/29658 dated 11-12-50 from Electrical Commissioner to The Secretary, P.W.D., and this was approved by Government in letter No. 2004/36-EL (1) and dated 19/12/1950. The company after consulting their principals increased the price by 10% and further included a price variation clause with a ceiling of 10% for increase in price due to Materials, labour etc. Vide Co.'s letter

P.T.O.

dated 21-12-50 provided the order was placed before Jan 15, 1951. The order was placed on Jan 9, 1951 by this department. Before the increase in price was known the estimates for the Scheme were submitted to Government for administrative approval with our letter No.T.8/1/24822 dated 18/10/50 on the basis of lower prices quoted to D.G.S. & D. This accounts for the major increase in the substation estimate. It is possible that there will be savings on some other items like 33 & 11.kV lines. On the other hand the erection cost of 110 kV. line will be more than provided for in the estimate.

It therefore cannot be said at present as to what the eventual cost will work out to be.

If, there is likely to be any substantial increase over the whole estimate of Rs.213.06 lakhs, Government will be approached in due course for a revised administrative approval for the scheme.

M. S. Chaudhary
Chief Engineer.

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18-11
P. W. I.
QJK 1551
109763

K.B.

pp 1-3.

Submitted.

pp. 1-3.

2. In his letter No. T-2/E-20/

35121, dt. the 17-11-52, the C.E., D.E. J., states that,

for the reasons explained therein, there has been an increase of Rs. 7.44 lakhs or about 13% over the estimates for the sub-stations under the Jy. Karnataka

Electric grid scheme which was approved administratively at an estimated cost of Rs. 213.06 lakhs. He adds that there may be savings on some other items like 33 and 11 K.V. lines but that, on the other hand, the erection cost of 110 K.V. line will be more than provided for in the estimate. He says, therefore, that it cannot be said at present as to what the eventual cost will work out to be. He adds that if there is any likelihood of substantial increase over the approved estimate of Rs. 213.06 lakhs, he will approach Govt. in due course for a revised administrative approval for the scheme.

3. In the circumstances stated

above...

above, no specific action appears to be necessary
on the C. E., D. E. & J.'s foregoing letter.

Record.

23-12-52.

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24/12/52

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D. J. (1. & E.)

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C O P Y

Telephone No.2110.
No.34423.

Encl. One.

GOVERNMENT OF MYSORE,
ELECTRICAL DEPARTMENT.
Office of the Chief Electrical Engineer,
Bangalore, 4th November, 1952.

The Superintending Engineer(Transmission),
Electric Grid Offices,
Mercantile Bank Buildings, Bombay.

Dear Sir,

Sub:- Jog-Karnatak Electric Grid Scheme -
Power supply at Harihar.

With reference to your letter No.T.8/9/31227 of the 10th ultimo, we wish to reply that the transformers required for power supply to the Harihar-Haveri Section of the Jog-Karnatak Electric Grid Scheme have been delayed in manufacture and are now expected to arrive in February-March 1953 and therefore it is not possible to give you power from these transformers by 1.6.1953. However, we are now considering the possibilities of giving power supply to a limited extent from our existing 66 kV. system at Davangere by the extension of a 66 kV Transmission line between Davangere and Harihar. It is hoped that we will be in a position to give this amount of power by the 1st June 1953. A copy of this office letter No.49778 dated 12.2.1952 is herewith enclosed as desired.

Yours faithfully,

Sd/- G. Chandy .
Chief Electrical Engineer.

RSC/-
14.11.52.

3
Letter.

No.T.8/9/ 35120
Electric Grid Offices,
Mercantile Bank Building,
Fort, Bombay 1 : Dated 17 November, 1952.

To

The Secretary to Government,
Public Works Department,
Bombay.

Sub:- Jog-Karnatak Electric Grid Scheme -
Power supply at Harihar.

I am enclosing herewith a copy of letter No.34423 dated 4th November, 1952 from the Chief Electrical Engineer to Government of Mysore. He states that due to delay in the manufacture of power transformers required for supply at Harihar, he is proposing to undertake special line construction, but even then, only a limited quantity of power would be made available to us by 1st June, 1953, instead of 1500 kw as per agreement. This is for information of Government.

Sanjiv Chaudhary
15/11/52
Chief Engineer.

Encl:-Copy of letter
No.34423 of
4-11-52 from Chief
Electrical Engineer,
Mysore.

RSC/-

14.11.52

W/KR/109761 92

CHIEF ENGINEER
BOMBAY ELECTRIC GR.D., BOMBAY
Order No. 49217
Date 24/11/52

K. B. P. W.

With ref: to 'A' order,
- the E.E., B.E.G., may be requested
not to state what exactly
will be the amount of limited
quantity to be available
for J.G. instead of 1500 KW
as per agreement with the
Mysore Govt.

ASB
24/11/52

24/11/52

AS (III)
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GJK 1952

109761

not to the E.E., B.E.G., d 22-11-52

SE (I)
24/11/52

24/11/52

✓

No. 44263

2-51?

GOVERNMENT OF MYSORE
Electrical Department
Office of the Chief Electrical Engineer.
Bangalore 13 December 1952.

The Superintending Engineer(Transmission),
Electric Grid ~~Offices~~. Offices,
Mercantile Bank Building,
Bombay 1.

Dear Sir,

Jog. Karnatak Electric Grid Scheme
Power Supply to Harihar.

With reference to your letter No.T.8/9/3909 dated
19-12-52 (II Reminder) I write to state that power supply to the
extent of 1500 K.W. will be available at Harihar subject to the
construction of the line between Davangere and Harihar being completed.
However, I would request you kindly to let us know as the probable
date by which you will be in a position to take power to enable us
to plan our construction programme accordingly.

Yours faithfully,

Sd/-xxx
Chief Electrical Engineer.

ITN/14.1.1953.

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No.T.8/9/11237
Electric Grid Offices,
Mercantile Bank Building, Fort,
Bombay, 1. 19th January, 1953.

To:-

Chief Electrical Engineer,
Government of Mysore.

Subj:-Jog Karnatak Electric Grid Scheme
Power Supply at Harihar.

Ref:-Your letter No.44263 dated 13-12-1953.

Dear Sir,

I note from your above letter that power to the extent of 1500 kW will be made available at Harihar subject to the construction of the line between Davangere and Harihar being Completed.

We expect to complete with erection of transmission lines and sub-stations in the Harihar-Haveri section by the end of August 1953.

Yours faithfully,

(sd) T. J. Michandani

Chief Engineer.

VLR.14/1/53. Copy to Executive Engineer Hubli for information, along with a copy of the letter under reference.

Below U.O.R. P.W.D. No.GJK/1552/109761
dated 22-11-1952.

.....
ELECTRIC GRID OFFICES.

The information required by Government had been called for, from the Chief Electrical Engineer, Government of Mysore and a copy of his reply is enclosed herewith. He has stated that power to the extent of 1500 kW as required by us will be made available at Harihar subject to the construction of the line between Davangere and Harihar being completed.

Based on our construction programme we expect that the transmission lines and substations in Harihar-Haveri Section to be completed by the end of August 1953 if unexpected delays do not occur and Chief Electrical Engineer, Mysore Government has been informed in our letter in reply, (a copy enclosed) to arrange for supply accordingly.

vanu... ..
19/1/53.

Encl:-As above.

The Secy.to Govt.,
P.W.D., Bombay.

U.O.R. No. T 8/9/2263

Bombay, 1. 19 January 1953.

VLR.14/1/53.

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P.W.S.

The C-E, BE-GS note overleaf
is submitted for information:
with refec. to the Secy's query
in the margin on p. 3 ante.
No further action is reqy.
on these papers.

ASB
21/1/53

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SS(96K)

W.D.

Secy.

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Letter.

To
The Chief Conservator of Forests.

No.PWD GJK-3951-J.

Bombay, 9th January, 1953.

Reference letter from the Chief Engineer, Bombay Electric Grid, No.T-8/C-8/38735, dated the 17th December, 1952, addressed to you regarding supply of wooden poles.

The supply of wooden poles is very essential for early execution of the Jog Karnatak Electric Grid Scheme which has reached an advanced stage. Please, therefore, consider the proposal contained in the letter referred to above favourably and take steps to supply the remaining 503 poles urgently after selecting the trees in consultation with the Electric Grid Department. The action taken in the matter should, please, be reported to Government..

By order of the Governor of Bombay,

S. G. Walavalkar

Under Secretary to the Government of Bombay,
Agriculture and Forests Department.

Copies to:-

the Chief Engineer, Electric Grid, (Bombay)

✓ the Public Works Department.

Public Works
Department 84

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GJK 1552

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Submitted for information.
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Very Urgent.

Letter.

copy 251
No. JKDH/5561 of 1952,
Office of the Executive Engineer, (Civil),
Jog Karnatak Electric Grid Division,
Hubli: Date/ 6.12. 1952.

To

The Superintending Engineer
(Transmission),
Electric Grid Offices,
Mercantile Bank Buildings,
Fort, BOMBAY -1.

Subject: Supply of wood poles.

Reference: Correspondence ~~xxxx~~ ending with this
office's endorsement below No. JKDH/5149
dated the 16th November 1952.

2. The Divisional Forest Officer Kanara Northern Dharwar,
under his letter No. G-25/5641 of 28-11-1952, (Copy enclosed
for ready reference) has informed me that due to heavy rejec-
tions made by this department during selection of poles, the
Chief Conservator of Forests Bombay State, Poona has been
requested to cancel the indent for the remaining 503 poles
still to be supplied.

The rejection of 602 poles out of 1150 poles pre-
sented for inspection appears no doubt very much. But inspite
of this heavy rejection most of the poles that have been
accepted also are not pleasingly straight but they had to be
accepted after giving maximum latitude in the specifications
regarding straightness, sweep and in some cases sizes also.
While selecting the poles due regard has been given not to
dry out this source of supply. The rejection of poles which
were very crooked and far beyond the limits of specifications
could not be helped considering their usage as transmission
poles. If the Forest department had taken sufficient care
to extract the poles conforming to the specifications by
sending an intelligent person to mark out such trees, instead
of depending upon the Forest Contractors who extracted the
poles, the rejection could not have been so heavy. This point
had been discussed, during one of the joint inspections with
the then Divisional Forest Officer Shri N.S. Kaikini and
it had appeared that he had been convinced of the same.

Further most of the poles rejected by this
Department may also find value in the local market as P.T.O.

timber and also as transmission poles for some of the private licensee's local distribution lines. They do not require such long lengths of poles as desired by us and it may be possible to cut and obtain shorter lengths of poles, fairly straight, for this purpose from the rejected ones.

It will be remembered that the Forest Department had accepted the firm order placed under your No.T.8/C-8/18285 dated the 28th July 1951 on condition that the supply would be as according to the specifications of this Department vide para 4 of the firm order. It was their duty to extract the poles according to our specifications accepted by them to avoid rejection of the poles. It will be also remembered that the Forest Department Officers wanted to Depatch the Poles without our inspection (vide Chief Conservator of Forests B.S. Poona's No.32/C/8780 of 15-10-51 addressed to you) but ultimately of their own accord they called me to inspect the poles. (vide letter No.3692 of 19-2-52 from Depot Officer Dandeli copy endorsed to you). This itself shows that when the Forest Officers inspected the poles supplied by the contractor they themselves became doubtful whether they conform to our specifications and hence called me to inspect the poles. It is therefore evident that no sufficient care was taken by the subordinates of the Forest Department in extracting the poles according to the specifications already accepted by them and hence the rejection has been heavy.

The erection work of transmission lines will commence in this month as the tenders have already been fixed. The whole programme of implementing the Jog-Karnatak Electric Grid Scheme which is assigned top-priority by the Bombay Government will be upset if the Forest Department backs out of its obligation at this stage to fulfill the firm order already accepted by it.

I shall therefore be obliged if the necessity and importance of not backing out of the Firm order once accepted by him at this stage is impressed upon the conservator of

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Forests, utilisation and Engineering Circle, Poona and he
be requested to not to approve the proposal of the District
Forest Officer, Kanara Northern Dharwar to cancel the indent
for the remaining 903 poles.

Encl: One copy.

Sd/-xxxxxx
Executive Engineer (Civil),
Jog Karnatak Electric Grid Division,
Hbbl.

ITN/15.12.1952..
Comp'd by:-

255
C O P Y

LETTER.

To

The Executive Engineer,
Jog-Karnatak Electric Grid Division, Hubli.

No.G/25/9641 of 1952-53.

Dharwar, 28-11-1952.

Subject:- Supply of wood poles.

Reference: Your No.JKDH/5189 of 16-11-1952.

It is seen that you have accepted only 547 poles and rejected 603 poles out of 1150 poles produced for inspection. Due to the heavy rejection made, it is found that supply of these poles is most uneconomical. As such the matter has been reported to the Conservator of Forests, S.C. to apprise to the Chief Conservator of Forests, B.S., Poona about the heavy rejection made and to cancel the indent for the remaining 503 poles still to be supplied.

Sd/- X X X

(S.R.Umbarje)

Divisional Forest Officer,
Kanara Northern, Dharwar.

ITN/15-12-1952.
Comp'd by:

"TRUE COPY"

VERY URGENT
LETTER.

Np.T.8/C-8/ 38735
Electric Grid Offices,
Mercantile Bank Building, Fort,
Bombay, 1. 17th December, 1952.

To

The Chief Conservator of Forests,
Poona.

Sub:-Jog Karnatak Electric Grid Scheme
Supply of Wood Poles.

Ref:-1) Correspondence ending with your
letter No.32/C/II/235/13560
dated 20-2-1952.
2) Divisional Forest Office, Dharwar's
letter No.G/25/9641 dated 28-11-1952.

I enclose herewith a copy of letter No. JKDH/
5561 dated 6-12-1952 received from our Executive Engineer (Civil)
Hubli and a copy of letter No.G/25/9641 dated 28-11-1952 from
your Divisional Forest Officer, Kanara Northern, Dharwar address
ed to our Executive Engineer (Civil) Hubli. It is seen from the
Divisional Forest Officer's letter that out of 1150 wood poles
produced for inspection by him, only 547 have been accepted by
our Department and as the rejection is heavy, the supply of
poles is most uneconomical he has recommended the cancellation
of the indent for the remaining 503 poles yet to be supplied. But
you will notice from our Executive Engineer's letter (enclosed)
the detailed reasons for the rejection and the maximum latitude
has been ^{allowed} ~~secured~~ in order to make use of indigenous supply. Only
poles which were very crooked and far beyond the limits of our
(~~specification~~) specification (accepted by you in your letter No.32-C-
II-235/1479 dated 2-5-1951) have been rejected as they cannot
be used for our Transmission lines. In spite of the heavy
rejection most of the poles selected by our Field Officer are
not pleasingly straight. It would appear from Executive Engineer
(Civil) Hubli's letter that if the Forest Department had taken
sufficient care to extract before felling the proper poles
conforming to our specification the rejection would not have
been so heavy.

The Jog Karnatak Electric Grid Scheme has
reached an advanced stage. All the Sub-Station Equipment have
been received at site. Most of the Transmission line materials
have either arrived or are about to arrive at site. The contract
for the fabrication of cross-arms based on the supply of wood
poles by you has been placed. The orders for the erection of

Transmission lines have also been placed. If at this stage you require us to cancel our order for the remaining wood poles, not only will be commencement of power supply to places which depend on these wood poles for transmission line be delayed but the fabrication of cross-arms will have to be altered to suit new supports. All this will result in long delays and loss to Government. Our order for the wood poles were placed only after you communicated that you would supply wood poles of the required specification in Mathi & Kindal species, vide your letter No.32-6-II-235/1479 dated 2-5-1951. Should you cancel the order, our attempt to make use of this indigenous material for Transmission lines which has been preessed for by some members of Government will have reached a sad anti climax.

Repeatedly members of the Government have been urging on me the use of wooden poles being indigneous to the area and I have personally gone to some length in explaining to them that although there is no treating plant in this State we are getting it done ^{at} Bhadravati with the active co-operation of your Department.

Under the above circumstances I request you not to cancel the order for the balance of wood poles still to be supplied by you but kindly arrange to extract the trees conforming to our specification and supply the balance of poles during the coming 3 months. If you require the assistance of this department in the selection of poles before felling kindly let me know.

As the matter is of a very urgent nature I request you to kindly let me have an immediate reply to this letter so that the arrangements of contracts for erection may go forward uninterrupted.

T. J. N. Chandani
16/7/52
Chief Engineer.

Encl:-As above.

✓ Copy forwarded with compliments to the Secretary to Government, Public Works Department, Bombay for information, with a copy of letter from Executive Engineer (Civil) Hubli. Should the Chief Conservator of Forests, Poona regret his inability to supply the balance of wood poles at this very late stage? The power supply to Hanagal is likely to be delayed as making alternate
P.T.O.

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arrangements for supports to cross-arms will take some time.

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Out of the 1150 wood poles produced for inspection by the Divisional Forest Officer, Kanara Northern, only 547 were accepted by the E.E., Jy. Karnataka El. Grid Div., Hubli. Due to heavy rejection, the supply of pole is found to be uneconomical and the Div. Forest Officer therefore proposes to cancel the indent for the remaining 503 poles. In his letter addressed to the Chief Conservator of Forest, the C.E., B.E.G., has fully ~~described~~ stated the effects of the proposed cancellation of indent. The Jy. Karnataka El. Grid Scheme has reached an advanced stage. If the indent is cancelled, commencement of elec. supply to the places, which depend on the erection of transmission lines on these wooden poles, will be delayed. The ~~previous~~ large percentage of rejections was due to the fact that the work was entrusted to the contractors by the Forest Deptt. If an intelligent person had been sent by the Forest Deptt. to point out ^{to} the contractors the trees that ~~would~~ would conform to the specifications, there would not have been such a high percentage of rejection. The Grid Deptt. is prepared to help the Forest Deptt. in the selection of poles before felling. As the supply of wooden poles is very essential for early execution of the work, the A. & F. D. may be requested to instruct the Chief Conservator of

F.
Total
poles 1050 of

Forest to consider the C.E., B.E. g's proposal favourably and to supply the remaining 503 poles after selecting the trees with the advice of the Grid Dept.

H
26-12-52

Thru: D.E (I)

MS
31/12

Yr. as above

LL
31-12

D.S. (G&E)

u.o.r. to the A.S.T.D., dt. the 27 January 1953.

issue 11 (30-1-53.)

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JBr...

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These phes: pertain to the supply of wooden poles by the Forest Dept. to the Electric Grid Dept. in connection with the Jog-Karnatale electric grid scheme. The Chief Engr has stated that the scheme has reached an advanced stage. He requested by the P.W.D. the C.C.F. may be asked to consider the C.E. B.E. g's proposal and to supply the wooden poles after selecting ^{the trees} with the advice of the Ele. Grid Dept. The appended letter may issue. After use, these phes. may be returned up to the P.W.D. Relevant extracts will be kept.

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Letter

23. 13.

To

✓ The C.C.F.

NO. PWD gJK-3955-J

Bombay 9-1-1953

17-9

Ref: letter from the Chief Electr.,

"Bombay Electric Grid, NO. T-8 (C-8) (38735,
dated the 17th Decr. 1952 ^{addressed to you} regarding
supply of wooden poles

The supply of wooden poles
is very essential for early execution
of the ~~Pop~~ Karnataka Electric Grid
which has reached an advanced stage
Scheme. Please, therefore, consider the
proposal contained in the letter
referred to above favourably and
~~to supply~~
take steps ^{urgently} for supplying the remaining
503 poles after selecting the trees with
in consultation with
~~the advice of the~~ the Ele. Grid Deptt.
and ~~the~~ the action taken in the matter
should please be reported to Govt.

By order:

File
ISSUED
ON 10/11

File
ISSUED
ON 10/11

Copies to:-
The Chief Electr. Officer, 2/11
The PWD, 8-1-1952
U2 to Govt. H.O.

265

GJK 1552/5158

K. Pri.

P. W. D.

Submitted with refer. to ^{pp 11-12} Govt.

dt. the 2-1-1953.

2. The A. & F. D. has issued neeq.
instructions ^{p. 13} to the chief conservator of Forests.
Further development may be awaited from the
C. E., B. E. G.

H
14-1-53.

Sd/-
15/1/53

~~D.S. (S.E.)~~
D.S. (IV)

Amul (19-2-53)
2071

157
Letter.

Subject: Supply of Junglwood transmission poles to Jog Karnatak Electric Grid Scheme.

No.33-C/II/256 of 1952-53.
Via Poona No.1, 29th December, 1952.

To

The Chief Engineer,
Electric Grid Offices,
Mercantile Bank Building,
Fort, Bombay.

Ref:- Your No.T.8/C-8/18385 dated 28-6-1951.

The Conservator of Forests, S.C. has been requested to extract the remaining 503 transmission poles from the N.D. Kanara Division according to your specifications and an effort will be made to supply these by the end of March or by about the middle of April 1953.

2- So far the Divisional Forest Officer, Kanara Northern Division has despatched 476 poles - vide his progress report sent to you under his No.G-25/9874 of 2-12-1952. He has been asked to despatch the remaining 71 poles as early as possible.

sd/-xx
(G.S.Singh)
Chief Conservator of Forests,
State of Bombay.

ITN/23.1.1953.

2 69
Letter.

No.T.8/C-8/.3012
Electric Grid Offices,
Mercantile Bank Building,
Bombay 1. 24 Jan. 1953.

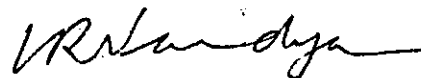
To

The Under Secretary to Govt. of Bombay,
Agriculture & Forest Department,
Secretariat, Bombay.

Sub:Jog Karnatak Electric Grid Scheme -
Supply of Wood Poles for line supports.

Ref: G.L.No.P.D.CJK-3951-J dated 9.1.53. addressed to
the Chief Conservator of Forests and Copy to this
office.

8-13
8-7
In reply to our letter No.T.8/C-8/38735 dt. 17-12-1952,
the Chief Conservator of Forests has agreed to supply the balan-
ce of wood poles required for the above scheme vide his letter
No.33-C/II/256 dt. 29.12.52 a copy of which is enclosed here-
with for ready reference.

8-17


For Chief Engineer.

- ✓ (1) Copy forwarded with compliments to the Secretary to Govt.
of Bombay, P.W.D., Bombay with a copy of Chief Conservator of
Forests's letter dated 29.12.52 for information. 8-17
(2) Copy to the Chief Conservator of Forests, State of Bombay,
Poona for information.
(3) Copy to the Executive Engineer (Civil), Jog Karnatak Elec.
Grid Division, Hubli. with a copy each of Conservator of
Forest's letter dated 29.12.52. and G.L. dated 9.1.53 for
information.

ITM/23.1.1953.

GJK 1552
9593
K.Br.

P.W.D.

Recond.

K.M.
31/1/53

ASS
31/1
file
31/1

mpdc.

78.
27/1/53.
K
2411
GJK 1552
9593
55

URGENT.

No. JKDH/5916
Office of the Executive Engineer (Civil),
Jog Karnatak Electric Grid Division,
Hubli, Dt/-22-12 Decr. 1952.

TO:

The Superintending Engineer,
(Transmission).
Electric Grid Offices,
Bombay No.1.

Subject: JOG KARNATAK ELECTRIC GRID SCHEME.
Progress of work.

Reference: The personal Assistant to the Deputy
Minister for Agriculture and Forests,
Bombay Province, Bombay's letter
dated the 9th December 1952.

.....

While enclosing a copy of the letter received by
me from the personal Secretary to the Deputy Minister for
Forest and Agriculture, I have to state that as desired in that
letter I saw the Deputy Minister on 15.12.1952. Other 4
Executive Engineers from Dharwar were also present. The
Deputy Minister enquired about the general progress of the
Jog Karnatak Electric Grid Scheme as he was acquainted with
the Construction Programme as detailed in the programme for the
year 1952-53 sent to Government under your letter No. TCP(Vol.VI)-
29763 dated 27th September 1952.

The Deputy Minister was generally satisfied with the
progress of our scheme but suggested to all Executive Engineers
to call up a press conference at least every six months and
acquaint the public with the progress so far made so that
the enquiries in this respect made by the Public to him and
Government would be minimized.

He also enquired whether it would be possible to
supply power to Hospet village and for the Lift irrigation
Scheme proposed near our Harihar sub-station. It seems, he
had once talked about this to Shri Ramu, Executive Engineer
(E. & M.) Bombay. He has received an application from the
villagers and he is sending it to you in due course.

I shall be therefore, obliged if you will kindly
advise me whether I may call the press conference and acquaint
the press with the progress so far made and announce the
construction programme as already submitted by us to Govern-

5-72.
- 2 -

ment. If necessary a small note may be prepared in your office for my guidance and I would give the information to the press based on that note. It will be observed from the report appearing in the Times of India dated 19.12.52, that Executive Engineer, Karnatak Public Health Division Dharwar had called a press conference few days back, as suggested by the Deputy Minister.

Sd/- XXXXX
Executive Engineer(Civil),
Jog Karnatak Electric Grid Division,
Hubli.

ITN/31.12.1952.
Compd by:

273
URGENT LETTER.

No. T-8/11/40540
Electric Grid Offices,
Mercantile Bank Building,
Fort, Bombay 1 : Dated 30th December, 1952.

To

The Secretary to Government,
Public Works Department,
Bombay.

Sub:- Jog-Karnatak Electric Grid Scheme -
Issuing press statements by Executive Engineer
(Civil), Hubli on progress of work.

The Executive Engineer(Civil), Electric Grid Division, Hubli, who is in charge of execution of the Jog-Karnatak Electric Grid Scheme, has advised me that he visited the Deputy Minister for Forests and Agriculture on 15-12-52 at Dharwar in accordance with instructions issued to him. During the visit, it was suggested to him by the Deputy Minister that a press conference should be held by the Executive Engineer once in six months to acquaint the public with the progress of Works in his charge so that the enquiries made by the public in this respect to the Deputy Minister and the Government may get minimised. I am attaching a copy of letter No. JKDH/5916 of 22-12-52 from the Executive Engineer(Civil), Hubli on this subject.

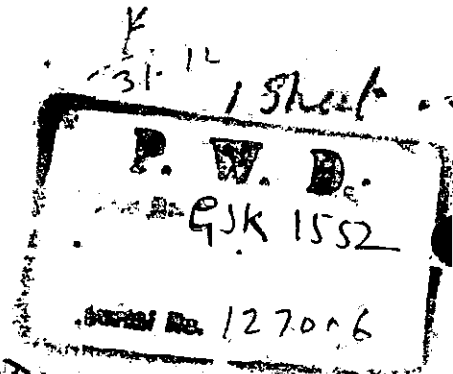
2. According to the accepted practice of this department, Executive Engineer(Civil), Hubli will have to obtain approval of the Public Works Department before holding any press conference. I, however, feel that the object the Deputy Minister had in view can be equally served by issuing a press ~~unfamiliar~~ statement, once in six months. I, therefore, request Government to advise me very early whether the Executive Engineer(Civil), Hubli should hold a press conference or issue

a press statement on the progress of the Jog-Karnatak Scheme choe in six months and whether the information or the text should first be approved by Government.

Sanjiv Kumar
Chief Engineer. *31/12/52*

11 - 2 -
Encl:- Copy of letter.

RSC/-
31.12.52.



Shm Nad.
2/1/53
K V 14/12/52
31-12-52

K.B.P.W.D.

The U.E., B.E. J., reports in his letter No. T8/1/40540, dt. the 30-12-52, that the Executive Engr. (Civil), Electric Grid Div., Hubli, who is in charge of the execution of the Govt-Karnatak Electric Grid Scheme, had a meeting with the Dy. Minister for Forests and Agriculture at Dharmavaram on the 15-12-52. In the course of the meeting, the Dy. Minister suggested to the Engr. to hold a press conference once in six months to acquaint the public with the progress of the Works so that the inquiries made by the public with the Dy. Minister and with Govt. may be minimised.

2. In this connection, the U.E., B.E. J., ^{p. 3.} states that according to the accepted practice of the Grid Dept., Govt.'s prior approval has to be obtained before holding a press conference. He ^{p. 3.} opines, however, that the Dy. Minister's object can be served equally well by issuing a press statement ~~every month~~ ^{once in six months} and he ^{pp. 3-4.} requests for Govt.'s orders in the matter and also whether the information on the text should first be approved by Govt.

3. It may be observed that as

between...

between the holding of a press conference and the issue of a press statement, the former appears to be more desirable since it will enable the representatives of the press to get all the information they want and to get their doubts and difficulties clarified. It also seems desirable that the Ex. Engr should obtain the prior approval of Govt. before information in the matter is released to the press the point is, however, for orders.

(A)

4. The requisite draft orders will be submitted for approval on the receipt of orders solicited in para. 3 above.

rsr
3-1-53.

(A) This seems essential if decided upon. A statement in the press once in six months will do well serve the purpose - I like to have the letter from (A) above.

D. J. (I & E).

4/3/53

Decy.

Do we not publish up to date progress Minister in "Bombay Marches On" or some such periodical publication of ~~Bombay Marches On~~? If P? If not we may arrange for it in consultation with D of P. Colls also may be kept posted by Ex Engr every month. No other steps would then be required.

B

4/3/53

Office (with ref to B).

Ch. N. R. 3.

K.B.P.W.D.

Re submitted with reference to Secy's
note dt. the 4-1-53.

2. In "Bombay Marches On"

which is a periodical publication of the Directorate of Publicity, up to date information in connection with electrification schemes in this state including the Govt. Karnataka Electric Grid Scheme is published. A copy of the latest ^{available} issue of the above publication containing the above information is put up below.

3. It may also be pointed out

that in his letter dt. the 7-5-52, the Director of Publicity has proposed to issue a pamphlet on Electricity Schemes as an independent publication. The C.E., B.E.G., has furnished the requisite information for being forwarded to the Director of Publicity.

4. In the above circumstances, the

2nd Feb 53.
W.S. 10/12.526.
(Enclosure)
(1/2 E+)

the C.E., D.E. ²⁷⁸ may, perhaps, be addressed
as per the draft put up for approval.
pp. 9-10.

rev.
H-1-53.
19-

rev.
20/1

mod
24/1

rev.
27/1/53

D. S. (I. & E.)

Secy.
Minister.

S.S.
25/1
+27/1

mod
28/1

28/1/53

No. JK 1552 K. Letter.

P.W.D.

B.C. (Bombay No. 1)
29 Jan., 53

To

The C.E., B.E. D.

Subject: - Govt. Karnataka Electric Grid Scheme.
Issuing press statements by the
Executive Eng. (Civil), Hubli, on
progress of work.

Reference: Your letter
p 3-4

No. T-8/1/40540, dt. the 30-12-52, on
the subject mentioned above.

2. Since up to date progress
is published in "Bombay Marches On" in
connection with the Govt. Karnataka Electric
Grid Scheme, Govt. does not consider it
necessary to issue press statements or to
hold press conferences as proposed by you.
p 3-4.
You are, however, requested to ask the

Ex. Eng.,...

Ex. Engr. (Civil), Hubli, to keep the collectors
posted every month regarding the progress
of the Scheme.

1-53.
19-

D.A. - Nil.

By order etc.

A. S. to Govt.

ISSUED
30/11/53

2/29/11

20/11/53

file
4/3

221
E-1388/TRC-46045

March 25, 1952

The Chief Engineer,
Electric Grid Offices,
Government of Bombay,
Mercantile Bank Building,
Fort,
Bombay 1.

Dear Sir,

JOG-KARNATAK ELECTRIC GRID SCHEME:
RECOMMENDED SPARE PARTS FOR SWITCHGEAR:

Against your order No. T.8/C-2/874 dated January 9, 1951,
we are supplying you the following General Electric power circuit
breakers:-

44 - Type FLO-15 - 100, 14.4 KV, 600 ampere
2 - Type FK-439 - 1500, 115 KV, 800 ampere
1 - Type FK-439 - 1000, 69 KV, 600 ampere
4 - Type FK-339 - 500, 34.4 KV, 600 ampere

Our engineers recommend that, in order to ensure proper
operation and maintenance of these breakers, you carry stocks
of the following spare parts, which are most likely to be
required at normal maintenance periods as well as in the event
of an unusual emergency:-

ITEM-1: For the 4 - Type FK-339-500, 34.5 KV, 600 ampere
oil circuit breakers:

2 - Upper contact assemblies
8 - Flexible contact leads
2 - Intermediate contact assemblies
2 - Throat bushings
1 - Lift rod and fittings
2 - Movable contact rods
1 - Set of breaker gaskets.

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT ... \$181.40

ITEM-2: For the 1 - Type FK-439-1000, 69 KV, 600 ampere
oil circuit breaker:

283

ITEM-2: (Continued)

- 2 - Upper contact assemblies
- 8 - Flexible contact leads
- 2 - Intermediate contact rod and collar assemblies
- 2 - Intermediate contact rod springs
- 1 - Lift rod
- 2 - Movable contact rods
- 2 - Upper baffle and contact guide assemblies
- 2 - Lower baffle assemblies
- 1 - Set of breaker gaskets.

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$356.98

ITEM-3: For the 2 - Type FK-439-1500, 115 KV, 800 ampere
oil circuit breakers:

- 2 - Upper contact bars
- 2 - Intermediate contact bars
- 2 - Lower contact bars
- 4 - Bridging contacts
- 8 - Arcing plates
- 2 - Contact disks
- 4 - Port blocks
- 2 - Center rods
- 2 - Contact tips
- 1 - Lift rod
- 1 - Set of breaker gaskets
- 4 - Flexible contact leads

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$747.67

ITEM-4: For the 1 - Solenoid Type SD-18 operating mechanisms:

- Closing coil
- Trip Coil
- 1 - Complete set of contacts & coils for control relay
- 1 - Complete set of contacts & coils for auxiliary
control relay.
- 1 - Cut-off switch
- 1 - Lock-out switch
- 1 - Latch checking switch.

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$236.05

ITEM-5: For the 4 - Type MA-14 pneumatic operating
mechanisms:

- 1 - Motor & belt
- 1 - Cut-off switch

285

~~28~~

ITEM-5: (Continued)

- 1 - Set of pressure switches
- 1 - "ac" auxiliary switch
- 1 - "bd" auxiliary switch
- 1 - Trip coil
- 1 - Control valve coil
- 1 - Anti-pump relay
- 1 - Set of heaters
- 1 - Set of valve gaskets & seats
- 1 - Choke coil (when furnished)

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT... \$230.23

ITEM-6: For the 2 - Type MA-15 pneumatic operating mechanisms:

- 1 - Motor & belt
- 1 - Cut-off switch
- 1 - Set of pressure switches
- 1 - "ac" auxiliary switch
- 1 - "bd" auxiliary switch
- 1 - Trip coil
- 1 - Control valve coil
- 1 - Anti-pump relay
- 1 - Set of heaters
- 1 - Set of valve gaskets & seats
- 1 - Choke coil (when furnished)

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT ... \$302.32

ITEM-7: 2 - Spare bushings, Cat. No. 3B271, 34.5 KV.

NET PRICE EACH F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT ... \$224.42

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT ... \$448.84

ITEM-7A: 2 - Spare bushings, Cat. 3B741, 69 KV.

NET PRICE EACH F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT ... \$572.09

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT ... \$1144.18

ITEM-8: For the 44 - Type FLO-15-100, 14.4 KV,
600 ampere solenoid operated oil circuit
breakers:

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-4-

ITEM-8: (Continued)

- Main contact fingers with springs, bolts, and nuts for eight poles.
- Stationary arcing contacts, for eight poles.
- Moving arcing contacts, for eight poles.
- 8 - Moving contact blades
- 8 - Contact operating rod
- 8 - Porcelain insulators with supports
- 8 - Sets of gaskets for complete breaker
- 8 - Closing coils for solenoid operating mechanism
- 8 - Trip coils for solenoid operating mechanism
- 8 - Sets of operating coils for closing relay
- 8 - Sets of main contacts for closing relay

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$2109.30

ITEM-9: For the 51 relay equipments:

- 18 - Sets of main, stationary and movable contacts (53A)
- 18 - Complete seal-in units
- 13 - Operating coil, magnet & top block assembly (53A4A)
- 4 - Operating coil, magnet & top block assembly (53A6A)
- 1 - Instantaneous attachment, complete (53B5A)
- 1 - Instantaneous attachment, complete (53B7A)
- 1 - Set of main, stationary & movable contacts (55A)
(130-IAC53A4A, 44-AAC53A6A, 3-IAC53B5A, 1-IAC53B7A,
& 2-IAC55A6A overcurrent relays)

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$593.02

Our engineers also suggest that you consider carrying stocks of the following spare fuses and insulators:-

ITEM-10: 1 - Cat. No. 418001, Type BMD fuse.

NET PRICE EACH F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$201.16

ITEM-11: 3 - Cat. No. 418010, Type BMD fuses ...

NET PRICE EACH F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$201.16

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$603.48

ITEM-12: 3 - Cat. No. 418025, Type BMD fuses

NET PRICE EACH F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$201.16

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$603.48

ITEM-13: 3 - Cat. No. 418050, Type BMD fuses.

NET PRICE EACH F.A.S. VESSEL NEW YORK, BOXED FOR EXPORT SHIPMENT	...	- ...	\$201.16
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NET PRICE THE LOT F.A.S. VESSEL NEW YORK, BOXED FOR EXPORT SHIPMENT	...	...	\$603.48
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ITEM-14: 27 - Cat. No. 6328054 G21, Type EJ-1 fuses.

NET PRICE EACH F.A.S. VESSEL NEW YORK, BOXED FOR EXPORT SHIPMENT	...	...	\$6.74
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NET PRICE THE LOT F.A.S. VESSEL NEW YORK, BOXED FOR EXPORT SHIPMENT	...	...	\$181.98
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ITEM-15: 21 - Cat. No. 6328054 G22, Type EJ-1 fuses.

NET PRICE EACH F.A.S. VESSEL NEW YORK, BOXED FOR EXPORT SHIPMENT	...	...	\$6.74
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NET PRICE THE LOT F.A.S. VESSEL NEW YORK, BOXED FOR EXPORT SHIPMENT	...	...	\$141.54
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ITEM-16: 3 - Cat. No. 6328054 G23, Type EJ-1 fuses.

NET PRICE EACH F.A.S. VESSEL NEW YORK, BOXED FOR EXPORT SHIPMENT	...	...	\$6.74
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NET PRICE THE LOT F.A.S. VESSEL NEW YORK, BOXED FOR EXPORT SHIPMENT	...	...	\$20.22
--	-----	-----	---------

ITEM-17: 3 - Cat. No. 6328054 G25, Type EJ-1 fuses.

NET PRICE EACH F.A.S. VESSEL NEW YORK, BOXED FOR EXPORT SHIPMENT	...	...	\$6.74
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NET PRICE THE LOT F.A.S. VESSEL NEW YORK, BOXED FOR EXPORT SHIPMENT	...	...	\$20.22
--	-----	-----	---------

ITEM-18: 6 - Cat. No. 6328054 G-59, Type EJ-1 fuses.

NET PRICE EACH F.A.S. VESSEL NEW YORK, BOXED FOR EXPORT SHIPMENT	...	...	\$9.36
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NET PRICE THE LOT F.A.S. VESSEL NEW YORK, BOXED FOR EXPORT SHIPMENT	...	...	\$56.16
--	-----	-----	---------

ITEM-19: 3 - Cat. No. 6328054 G-63, Type EJ-1 fuses.

NET PRICE EACH F.A.S. VESSEL NEW YORK, BOXED FOR EXPORT SHIPMENT	...	...	\$9.36
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NET PRICE THE LOT F.A.S. VESSEL NEW YORK, BOXED FOR EXPORT SHIPMENT	...	...	\$28.08
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-6-

ITEM-20: 3 - Cat. No. 6328054 G-71, Type EJ-1 fuses.

NET PRICE EACH F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$9.36

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$28.08

ITEM-21: 74 - Cat. No. 6009920 P-1 Insulators.

NET PRICE EACH F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$10.21

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$755.54

ITEM-22: 11 - Cat. No. 6009922 P-1 Insulators.

NET PRICE EACH F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$19.02

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$209.22

ITEM-23: 2 - Cat. No. 6009917 P-1 Insulators.

NET PRICE EACH F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$25.80

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$51.60

ITEM-24: 35 - Cat. No. 1523294 P-1 Insulators.

NET PRICE EACH F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$40.70

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT \$1424.50

PRICES: The prices quoted herein shall be adjusted at the completion of manufacture of the products or each shipping unit thereof to the extent of any general adjustment which the Company may make in its prices for similar products between the date of this quotation and the date of completion of manufacture of the products, provided however, in no event will any increase in price exceed 10% (ten percent) of the prices quoted herein.

DELIVERY: Based on the conditions prevailing at the factory at the present time, we estimate that shipment of the above equipment can be made ex-factory in approximately 14 to 15 weeks after receipt of your order together with complete information including particulars of import licence at the factory.

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F7-

The delivery dates given in this quotation are estimated and are contingent upon the continued receipt of materials and non-interference of production schedules by U.S. Government orders or regulations.

TERMS OF PAYMENT: It is suggested that mutually acceptable terms of payment be discussed and agreed upon.

TERMS OF SALE: F.A.S. VESSEL NEW YORK.

CONDITIONS OF SALE: Will be in accordance with general conditions outlined in enclosed form G16D(2-52).

IMPORT LICENCE: In the event of an order it will first be necessary to obtain an import licence from the Government of India for importing these materials from U.S.A; therefore, we would request you to arrange to obtain the necessary import licence and send it to us at the time of placing your order with us.

We trust that our quotation as submitted above will meet with your approval. May we look forward to the pleasure of furnishing your requirements?

(Continued on sheet 8)

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GENERAL CONDITIONS APPLYING TO THIS QUOTATION AND TO ANY ORDERS PLACED HEREUNDER.

I. PRICES

A. Unless otherwise specified by the Company the prices quoted herein include delivery by the Company F.A.S. Vessel, New York, packed for underdeck export shipment in accordance with the standard practice of the manufacturer. There will be an extra charge for tests performed in the presence of the Purchaser's representative or different from those normally made by the manufacturer. Any demurrage charges that may be involved in connection with shipment of the products covered hereby (herein referred to as "the products") not due to the fault of the Company shall be payable by the Purchaser upon submission of invoices therefor.

B. The prices quoted herein do not include any United States sales, use, excise or similar taxes from which an exemption can be secured by reason of the fact that the products are to be exported, and upon request by the Company the Purchaser will promptly furnish the Company with such tax exemption certificates or other documents as the taxing authorities may require in order to establish exemption from such taxes. If, as a result of the Purchaser's failure to so provide such certificates or documents, the Company becomes liable for the payment of any such tax, the Purchaser shall pay to the Company the amount thereof. All taxes imposed by the Government of India or any State Government shall be payable by the Purchaser or shall be for the account of the Purchaser.

C. The prices quoted herein are based on the quantities specified and are subject to the provisions as to price appearing in this quotation.

II. DELIVERY

A. Delivery dates refer to the dates when it is estimated that the products will be ready for shipment from the factory and are based on the prompt receipt by the Company from the Purchaser of (a) an order and all information necessary to permit the Company to proceed with work immediately and without interruption, (b) any assurance which the Company may require that the Purchaser will be able to comply with the terms of payment agreed upon and (c) any required export or import license or evidence of its issuance, as the Company may request. The delivery dates are subject to confirmation at the time of acceptance of the order by the Company.

B. The Company shall deliver the products to the Purchaser F.A.S. Vessel, New York, provided, however, that if, at the time the products or any part thereof are ready for shipment from the factory or ready for delivery F.A.S. Vessel, New York, such shipment or delivery cannot be made for any cause referred to in paragraph III hereof, the Company may, unless other arrangements are made by the parties for the delivery of the products, place the products in storage either at the factory or in a warehouse for the Purchaser's account and risk and subject to the Purchaser's instructions, in which event the following conditions shall apply:

1. All expenses incurred by the Company in connection with the storage of the products, including the cost of preparation for and delivery to storage, storage and handling charges and insurance if placed, shall be payable by the Purchaser upon submission of invoices therefor.
2. The Company shall, as soon as conditions permit, and pursuant to instructions of the Purchaser, deliver the products from storage to the Purchaser F.A.S. Vessel, New York, upon payment by the Purchaser of all amounts due with respect to the products.

C. Unless otherwise agreed to in writing, title to the products shall pass to the Purchaser upon delivery, F.A.S. Vessel, New York.

III. FORCE MAJEURE

The Company shall not be liable for loss or damage due to delay in manufacture or delivery resulting from any cause beyond the Company's reasonable control, including, but not limited to, compliance with any regulations, orders or instructions of any federal, state or municipal government or any department or agency thereof, acts of God, acts or omissions of the Purchaser, acts of civil or military authority, fires, strikes, factory shut-downs or alterations, embargoes, war, riot, delays in transportation, or inability due to causes beyond the Company's reasonable control to obtain necessary labour, manufacturing facilities or materials from the Company's usual sources, and any delays resulting from any such cause shall extend delivery dates correspondingly. In no event shall the Company be liable for consequential or special damages on account of delay due to any cause.

IV. WARRANTY

A. The Company warrants that the products shall be free from defects in material and workmanship.

B. The Company's obligations under said warranty shall be limited to repairing or replacing (at the Company's option) F.A.S. Vessel, New York, any part of the products which has been properly installed and which, under normal and proper use and maintenance, proves defective in material or workmanship within fifteen (15) months from the date of completion of manufacture, provided that notice of any such defect and satisfactory proof thereof is promptly given by the Purchaser to the Company. No other warranty, whether oral, statutory or implied, shall apply to said products, and, in no event, shall the Company be liable for consequential or special damages.

C. It is understood that the above warranty does not apply to products which have a life, under normal use, inherently shorter than the fifteen (15) months' period specified, as for example, lamps, electronic tubes, certain electric furnaces and radio broadcast and television receivers. With respect to such types of products, the regular existing warranty of the manufacturer, suited to the type of products in question, shall apply, except that any repairing or replacing done by the Company under such warranty shall be on the basis of F.A.S. Vessel, New York.

9 16

V. TERMS OF PAYMENT

Unless otherwise specified by the Company, terms of payment shall be 100% cash in United States currency upon presentation by the Company of its invoices and evidence of delivery F.A.S. Vessel, New York, covering each shipment hereunder, at a designated paying agency in New York acceptable to the Company, provided that, if the products are stored under the conditions set forth in Paragraph IIB, the Company may at its option change the terms of payment so that all dates of payment which are in any way related either to delivery F.A.S. Vessel, New York, or to documents resulting from such delivery, shall relate to the date of completion of manufacture of the products. In the event the terms of payment are so changed the documents to be presented by the Company for payment shall be its invoices and its certificate that manufacture of the products has been completed. At the Company's request, payments shall be made through the medium of an irrevocable Letter of Credit established by the Purchaser, at the time of placing the order, in favour of the Company, confirmed by a New York bank satisfactory to the Company. Any such Letter of Credit shall contain a provision for the payment therefrom of the full amount of any cancellation charges which may become due from the Purchaser to the Company under the provisions hereof.

VI. OCEAN SHIPMENT

If the Purchaser requests the Company to make or arrange for ocean shipment and the Company agrees to do so, the Company shall act as agent for the Purchaser, and shall in each case take out marine insurance and, if requested by the Purchaser, war risk insurance. All out-of-pocket expenses, fees and costs, including the cost of preparing consular invoices and storage charges, if any, shall be payable by the Purchaser upon submission of invoices therefor. Unless otherwise instructed by the Purchaser, the Company will make consular declarations according to its best judgement, but without liability for fines or other charges due to error or incorrect declarations.

VII. GOVERNMENT AUTHORIZATIONS

A. The Purchaser or the Company, whichever is the proper party under the applicable statute or regulation, shall make application for any government export license, preference rating or other government authorization which may now or hereafter be required in order to export or manufacture the products, and the parties shall co-operate with and assist each other in every manner reasonably possible in securing any such license, rating or authorization.

B. If any required export license is not delivered to the Company within sixty (60) days from the date application is made therefor, which application shall be made within twenty (20) days from the date it may be filed under the applicable statute or regulation, or is not renewed when necessary, the parties shall immediately consult with one another with a view to arriving at a mutually satisfactory solution of the problems involved in the continued production of the products in the absence of such export license. In any event, if any such export licence is not delivered or renewed as aforesaid, and if, in the Company's sole judgement, the payments required of the Purchaser hereunder will not assure that the Company will from time to time have received from the Purchaser a portion of the price quoted herein equivalent to the percentage of the completion of the production schedule of the products, the Company may upon ten (10) days written notice request that the terms of payment be changed in a manner as will, in the Company's sole opinion, afford it such assurance. In the event the Purchaser fails within thirty (30) days to accept any such request for a change of payment terms the Company may, at its option, cancel any order placed pursuant hereto and the Purchaser shall pay to the Company reasonable and proper cancellation charges.

C. In the event production of the products is at any time prevented or suspended as a result of Government allocation of materials, labour or facilities or other government requirements or orders for a period of two (2) months or longer and in the opinion of the Company production will be impossible in the reasonably foreseeable future, the Company shall so notify the Purchaser and either party may, upon written notice to the other party, cancel any order placed pursuant hereto with respect to the products the production of which has been prevented, and, in that event reasonable and proper cancellation charges resulting from such cancellation shall be borne equally between the parties.

VIII. CANCELLATION

Subject to paragraph VII c. hereof any order placed pursuant hereto may be cancelled by the Purchaser only upon written notice and upon payment to the Company of reasonable and proper cancellation charges.

IX. GENERAL

A. No waiver, alteration or modification of any of the provisions hereof shall be binding upon the Company unless in writing and signed by an officer of the Company.

B. This quotation is subject to change at any time upon notice and expires fifteen (15) days from its date unless otherwise indicated.

YOURS FAITHFULLY,

P.P. INTERNATIONAL GENERAL ELECTRIC CO. (INDIA) LTD.

By T. A. CHELIAPA

BOMBAY OFFICE.

RV.

271

STATEMENT OF SPARE PARTS.

Item No.	Item.	S/S where required:	No. recommended: by M/s I.G.E.	No. Proposed: to be order: -ed.	Reason for deviation from Messrs: I.G.E.'s recommendation.	Total Price as per our recomm- endation F.A.S. New York.
----------	-------	---------------------	-----------------------------------	---------------------------------------	---	---

Reference Messrs. I.G.E.'s Quota-
tion dated 25/3/52.

1.	contact assembly's etc. for 33 KV C.C.B.s.	Harihar Ranibennur Byadgi and Haveri.	1 set	1 set	-	\$ 181.40
2.	Contact assemblie's etc. for 66 KV O.C.B.'s	Harihar	1 Set.	1 Set	-	\$ 356.98
3.	Contact assemblie's for 110 KV O.C.B.'s	Kavalvad.	1 Set.	1 Set.	-	\$ 747.67
4.	Closing and trip coils, con- tacts etc. for 33 KV O.C.B.	Hubli.	1 Set	1 Set	-	\$ 236.05
	Belt, Switches, etc for 66 KV & 33 KV O.C.B.'s	Ranibennur & Harihar	1 Set	1 Set	-	\$ 236.23
6.	Belt, Switches etc. for 110 KV O.C.B.	Kavalvad.	1 Set	1 Set	-	\$ 302.32
7.	Spare bushings for 33 KV. O.C.B.	Hubli. & Ranibennur.	2 Nos.	2 Nos.	-	\$ 448.84
7A.	Spare bushings for 66 KV O.C.B.	Harihar	2 Nos.	1 No.	We have only 1-66 KV. O.C.B.	\$ 572.08
8.	Contact Coils etc. for 11 KV O.C.B.'s	Sirsi Dandeli Hubli Gadag Hanagal Dharwar	8 Sets.	9 Sets.	We require 1 set at each substation where 11 KV O.C.B.'s are installed.	\$ 2372.96

Ranibennur
Byadgi
& Haveri.

9.	Contacts coils etc. for relay equipments.	51 Relay equipments at all stations.	1 Set.	1 Set.		\$ 593.02
10.	110 KV 1 Amp. fuse for 110 kv P.T.	Kavalvad.	1	1		\$ 201.16
11.	110 KV 7 Amp. fuse for 1000 kVA power Transformer.	Sirsi	3	3		\$ 603.48
12.	110 kv 15 Amps. fuse for 2000 kVA/Transformer /power	Hubli.	3	3		\$ 603.48
13.	110 kv 30 Amps fuse for 5000 kVA Power Transformer.	Dandeli. & Hubli.	3	6	Both Dandeli and Hubli have 5000kVA Transformers.	\$ 1206.96
14.	11 kv 1 Amp fuse for 11 kv P.T.'s	All stations except Kavalvad & Harihar.	27	27		\$ 181.98
15.	11 kv 2 Amp fuse for 25 KVA C.P.T.	Sirsi Gadag Hanagal Dharwar Ranibennur Byadgi & Haveri.	21	21		\$ 141.54
~~16.~~	~~xxxxContact assemblyxxxxxx for xxx~~ ~~xxxxxx 11 kv 1 Amp fuse for 11 kv P.T.'s~~	~~Harihar Ranibennur~~	~~xxxxSet~~	~~1xSet~~		~~\$ 181.98~~

17.

227

Item No	Item.	S/S where required	No recommended by M/s I.G.E.	No. proposed to be order-ed.	Reason for deviation from Messrs. I.G.E.'s recommendations.	Total price as per our recommendation F.A.S. New York.
16.	11 kV. 3 A fuses for 50 KVA C.P.T.	Dandeli	3	3	-	\$ 20.22
17.	11 kV. 7A fuses for 100 kVA C.P.T.	Hubli	3	3	-	\$ 20.22
18.	33 kV. 1A fuses for 33 kV P.TQS.	Hubli Harihar	6	6	-	\$ 56.16
19.	33 kV. 7A fuses for 300 kVA C.P.T	Harihar	3	3	-	\$ 28.08
20.	33 kV 65A fuses for 2000 kVA Tr.	Gadag	3	3	-	\$ 28.08
21.	11 kV. Insulators.	Sirsi. Dandeli Hubli Gadag Hanagal Dharwar Ranibennur Byadgi Haveri.	74	48	48 Nos. are considered adequate.	\$ 490.08 (490.08)
22.	33 kV Insulator.	Hubli. Gadag Harihar Ranibennur Byadgi.	11	11		\$ 209.22
23.	66 kV. Insulators	Harihar	2	2		\$ 51.60

reference I.G.E. quotation
dated 30.7.52.

1. 115 kV 1200 Amps Bushings.

Kavalvad
Dandeli
Hubli.

Kavalvad/.

2

\$ 1169.30

Total \$11,541.52.

ITN/25.9.52.

Letter.

No.T.8/C-3/ 29695
Electric Grid Offices,
Mercantile Bank Building,
Fort, Bombay 1 : Dated 26th September, 1952.

To

The Secretary to Government,
Public Works Department,
Churchgate Street,
Fort, Bombay..

Sub:- Jog-Karnatak Electric Grid Scheme -
Spare parts for switchgear.

In connection with the above scheme administratively approved by Government in Government Resolution No. GJK 1551 dated 18-6-51, orders were placed with Messrs. International General Electric Co.(India) Ltd., for the substation equipment. Their original quotation included the cost of spares for Transformers and synchronous Condensers. These were also ordered along with the main equipment. They have now quoted for spares for switchgear, spare fuses and insulators in their letters No.E-1388/TRC-46045, dated 25-3-52 and E-1388/46960 dated 30th July, 1952, copies of which are enclosed herewith. They have recommended these for normal maintenance. The Company's recommended spares are generally acceptable. Only in respect of a few items, the quantities have been altered to suit our needs. Statement of particulars of spares, the quantity and their F.A.S. New York price is enclosed herewith. The total F.A.S. New York price of the spares is \$ 11541.52. The prices quoted are subject to adjustment at the completion of manufacture of the products or each shipping unit thereof on the basis of any general adjustment which the company may make in its prices for similar products between the date of their quotation and the date of completion of the manufacture subject to a ceiling of 10% over the prices quoted. The terms of payment will be the same as for the order for main substation equipment as under:-

- a) 80% of F.A.S. vessel New York price of the equipment will be paid in U.S. Dollars against presentation of shipping documents in India.
- b) 10% of the F.A.S. vessel New York price of the equipment will be paid in U.S. Dollars six months after completion of manufacture of the equipment.

- c) 10% of the F.A.S. vessel New York price of the equipment will be paid in U.S. Dollars twelve months after completion of manufacture of the equipment.
- d) Payments as above will be made in respect of each shipping unit of the equipment.
- e) All expenses incurred for ocean shipment, insurance, customs duty, Railway freight, transport to site and storage charges, if any, due to shipping space not available will be paid in U.S. Dollars in respect of expenses incurred in U.S. dollars and in rupees in respect of expenses incurred in rupees on presentation of invoices together with original bills, if any.
- f) If the equipment is stored under the circumstances applicable to the main order, the Company may at its option change the terms of payment so that all dates of payment which are related to documents resulting from steamer shipping shall relate to the date of completion of manufacture of the equipment. In the event the terms of payment are so changed, the documents to be presented by the company for payment shall be its invoices and its affidavit certifying to the date of completion of manufacture of the equipment.

All other terms and conditions also will be the same as for the main order.

The estimated expenditure covering the cost of spares F.A.S. New York, Ocean freight, Insurance and transport and allowing for price variation amounts to Rs.75,350/-, of which payment in dollars will be about \$ 13650 or Rs.65,520/- as per details below:-

Cost of spares F.A.S. New York	...	\$ 11,541.52
Estimated cost of ocean freight	...	" 865.61
		<u>\$ 12,407.13</u>
Allowance for price variation 10%	...	" 1,240.71
Total	...	<u>\$ 13,647.84</u>

or say \$ 13,650/- or Rs.65,520/-

(i.e. at Rs.4.8/dollar this amounts to Rs.65,520/-).
to Rs.65,520/-)

Estimated cost of Insurance, Customs clearance, Railway freight from port of entry to site at 15% 9,830

Rs. 75,350

29. 305

7-3-

This amount was not included in the original estimates sanctioned administratively, as it is chargeable to Stock-suspense, to be debited later to maintenance when the spares are used for replacement in service.. I am, therefore, to request sanction of Government to incur this expenditure as a separate item to be charged to "Stock-Suspense". As the spares are required to be of the same manufacture as the equipment for which they are meant, I request approval of the Government to place orders with Messrs. International General Electric Co. (India) Ltd. The terms of payment as mentioned above may also be approved.

non-essential
269/52
Chief Engineer.

Encls:-

- 1) Copy of letter No. E-1388/PP-1-16
TRC-46045 of 25-3-52, and
- 2) -do- No. E-1388/46960
of 30-7-52
from M/s. I. G. E.
- 3) 1 Statement of Spares. 11. 21-24.

RSC/-
25.9.52.

30.7.

GOK 1552
91063

P. W. J.
'K'

Submitted.

2. The C.E., B.E.G., wants to place an order with the International General Electric Co.(India) Ltd., for spare parts for switchgear, spare fuses, etc. required in con. with the Jog Karnatak Elec. Grid Scheme. The details of the spares are given in the statement at pp.21-23 ante. The total estimated price is about Rs.75,358 vide details at p.27 ante. This amount was not included in the original estimates sanctioned by Govt. under G.R. No.GJK 1551, dated the 18-6-51, as this is chargeable to stock suspense to be debited later to maintenance when the spares are used for replacement in service. Govt. sanction is therefore necy. to the expenditure on these spares. Please see the terms of payment at pp.25-27 ante. Govt. approval is also necy. to these terms.

3. It is not clear from the C.E.'s letter whether the expenditure will be incurred in this year or in the next year. The C.E. may be requested to clear the point as per draft put up for approval.

three X Br

GJP.
14/x/52

14/10/52
GJP.
20.10.52

W.S.(GME)

9/11/52
21/7

Letter.

No.GJK 1552 K.

P. W. D.,
B.C. (Bombay No.1),
23rd Octr. 1952.

To

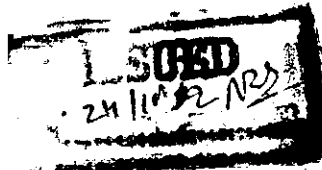
The C.E., B.E.G.

Subject: Jog-Karnatak Electric Grid Scheme:
Spare parts for switchgear.

A - 36
Reference: Your letter No.T.8/C-2/29695,
dated the 26-9-52.

2. Please intimate to Gbvt. whether the expenditure in question is to be incurred in the current year or in the next year.

By order of the G. of B.,



GJP.
14/X/52.

D.A. - Nil.

Asstt. Secy. to the G. of B.;
P. W. D.

He
14/10/52

See work
14/10/52

Letter.

No.T.8/C-2/ 33487
Electric Grid Offices,
Mercantile Bank Building,
Fort, Bombay 1 : Dated ~~October~~, 1952.
3 "

To

The Secretary to Government,
Public Works Department,
Bombay.

Sub:- Jog-Karnatak Electric Grid Scheme -
Spare parts for Switchgear.

A | Ref:- Government letter No.GJK 1552 K
dated 23-10-52.

B. | The expenditure involved in ordering the spare
parts for switchgear mentioned in our letter No.T.8/C-2/
29695 dated 26th September, 1952 will be incurred in
1953-54 only and will be met from the budget grant for
that year.

non usandum
11/52
Chief Engineer.

RSC/-
31.10.52. .

K
4/4

EJKISSZ

104181

K

3 11-3

K.Br.

P-33

P.W.D.

Submitted with refce. to G.L. No. GJK 1552K,
dated the 23-10-1952.

P-35

2. The C.E., B.E.G., has now stated that the
expenditure involved in ordering the spare parts
for switchgear, will be incurred in 1953-54, and
will be met by him from within his sanctioned
grant for that year. In view of this, sanction
may be accorded to the incurring of expenditure
on for these spare parts for switchgear, spare fuses,
etc. required in connection with the Jog Karnataka
Electric Grid Scheme, and the C.E., B.E.G.,
authorised to place an order with the International
General Electric Co. (India) Ltd. The F.D. may
see u.o. for concurrence.

Thro. "X" Br.

3/12/52.

Sd/-
6/12/52

OS (C.E.)

by
9.11

Ltr. to F.D. of the 9-12-52.

FINANCE DEPARTMENT	
Fl. No.	1112
Date	10/12/52
Serial No.	59477

uo (9-1-53)

Finance Deptt. (III).

The P.W.D. may be requested to forward
the papers underlying 'A' on page 3/ ank for
F.D.'s persual, in the first instance. It is
not clear whether order has been placed with
said firm for any equipment required ^{for} the main
sub-station and if so, whether the conditions
mentioned in C.E.'s ^{pp 25-27 ank} letter dated 26th Septr.
1952 have been approved by Govt. in the case
of that equipment. If no equipment for the
main sub-station is orderd from the firm upto
now, the P.W.D. may be requested to state

IMMEDIATE.

FINANCE DEPARTMENT.

File No. SJK
1552

of . Public Works

Department.

Subject:- Tog- Karnatak Electric Grid Scheme
Spare parts for -

Circulated to the

EXPENDITURE PRIORITIES COMMITTEE.

17/11/53
27/11
E.S.

M (FD)

9/11
12 1/53

Secy P.D.

12/11

This was discussed and approved.
17/11/53
Nov 6 P.D. dated 28.11.53

2/10/1
27/11

40--

k.
296

F. V. E.	
PL 55	LIK 1552
Serial No.	11175

Shm H
29/1

2

29-1-
55

K. Pr.

P.W.D.

Submitted with reference to this Dept. u.o.n.
dated the 9-12-1952.

P-37

P-42 P-56

2. Negy. draft is put up for approval.

note on p. 38.

K. Pr.

Thro' ~~X~~ Pr. DDE (I)

8/2/53. +12

3/- In view of D.S. 20's first marginal note at p. 38

~~D.S. (I-38.)~~

no question of a token grant arises. The proposal utals
to show of M&R. It may see no. after view.

18/4/53

~~See~~

18/1/52

DS (LHE)

18/1/52

See

21/2

87, 00. Inc 3-11-1952

43
Letter.

URGENT.
No. GJK 1552 K.

Public Works Department,
Bombay Castle (Bombay No.1),
21st February 1953.

To

The Chief Engineer, Bombay Electric Grid.

Subject:- Jog-Karnatak Electric Grid Scheme:
Spare parts for switchgear.

Reference: Correspondence ending with your letter
No. T.S/C2/33487, dated the 3rd November 1952.

2. Sanction is accorded to incurring of the expenditure amounting to Rs. 75,350/- during 1953-54 for spare parts for switchgear, ~~spare~~ spare fuses etc. in connection with the Jog Karnatak Electric Grid Scheme, as a separate item to be charged to "Stock- Suspense".

3. Sanction is also accorded to place orders with Messrs. International-General Electric Company (India) on the terms of payment mentioned in your letter No. T.S/C-2/29695, dated the 26th September 1952. The spare parts now to be ordered should be of the same manufacture as the equipment.

4. The expenditure is debitable to the budget head "B1-4 Capital Outlay on Electricity Schemes - Suspense Stock" and should be met from the provision that shall be made therefor for the year 1953-54.

By order and in the name of the Governor of Bombay,

4 PC

L. S. Chhavan

C/K

Deputy Secretary to the Government of Bombay,
Public Works Department.

D.A.- Nil.

Copy, with copies of the Chief Engineer, Bombay Electric Grid's letter Nos. T.S/C-2/29695, dated the 26th September 1952, and T.S/C-2/33487, dated the 3rd November 1952 forwarded to -

the Finance Department,
the Accountant General, Bombay (through the
Finance Department).

Orders issued after consultation with
Finance Department and
seen when required.

ISSUED

23-2-53

21/2/53.

Letter.

1-115-3-1
No. T. & C-22/1200
Electric Grid Offices,
Mercantile Bank Building,
Bombay 1.

10th Jan. 1953.

To

The Deputy Secretary to Govt.,
Public Works Department,
Bombay.

Sub: Jog Barmata Electric Grid Scheme -
Spare Parts for Switchgear.

P-25.
I invite reference to this office letter No.
T. & C-2/29695 dated 26th Sept 1952 and request that the
approval of Govt. may be communicated early to enable us
to take further action in the matter.



For Chief Engineer.

ETN/C.1.53.

GJK 1552

4231

2-16

K. P.V.

P. W.D.

The main papers on the subject bearing No: GJK 1552/194781, have been ref. up to the J.D. on the 9-12-1952. That Dept. may be expedited under No: GJK 1552 K, dated the 22nd January 1952.

Hand 22/1/53

K. S.H.
22/1/53.

ASB
22/1

supdt.

22/1/53
12/1

supdt. (5-7-53)

19/2

24/1

I. W. D.	
FILE NO.	AP 134
GJK 1552	
WORK NO.	4229

4231

GJK 1552

17815

K.Br.

P. 100

The main papers on the subject bearing NO: GJK 1552/11175, have been submitted to "X" Br., DE(I), and the DS(I.XE.) on the 8-2-1953.

K.Br.

18/2/53.

Thro: "X" Br. & DE(I)

2. The papers have been passed on by

X Br. to D.E.(I) on 18.2.53.

S.P.

19.2.53

The case has been passed AS(IV) on by me on 24/2

AS-(IV)

1412

GJK 1552

17815

K.Br.

Resubmitted.

2. New orders in the matter have been issued vide GJK NO: GJK 1552 K, Dt. the 21.2-1953.

K.Br.

23/2/53.

AS

24/2

Supdt.

Letter.

47 2 2
No.T.8/S-2/ 5732
Electric Grid Offices,
Mercantile Bank Building,
Bombay 1. 13 Feb. 1953

To

The Deputy Secretary to Govt.,
Public Works Department,
Fort, Bombay.

Sub: Jog Karnatak Electric Grid Scheme -
Spare Parts for Switchgear.

11173
30/1
* I invite reference to this office letter No.T.8/C-2/
29695 dated 26th Sept. 1952 on the subject mentioned above
and request you kindly to move the Govt. to take early action
in the matter to enable me to place orders for the spares
for the switchgear required for the above scheme.

P-25
VR Khandya

For Chief Engineer.

ITN/11.2.53.

Jog-Karnatak Electric Grid Schemes

Order for Spares for Substation Equipment.

Schedule 'A'.

Item No.	Description.	Quantity.	Rate F.A.S.	Total F.A.S.	Destination Rly Station to which the materials is to be despatched.
1.	2.	3.	4.	5.	6.
2.	For the 4-Type FK-339-500,600 Amp. 34.5 kV Oil Circuit Breaker				Ranibennur
	(i) Upper Contact Assemblies.	2			
	(ii) Flexible Contact Leads.	8			
	(iii) Intermediate Contact Assemblies.	2			
	(iv) Throat bushings	2			
	(v) Lift rod & fittings.	1			
	(vi) Movable contact rods.	2			
	(vii) Breaker Gasket-Sets.	1		481.40	
	Net Price of the lot			181.40	
2.	For the 1-type FK-439-1000, 100 Amp. 69 kV Oil circuit Breaker.				Harihar.
	(i) Upper contact assemblies.	2			
	(ii) Flexible contact leads	8			
	(iii) Intermediate contact rod and collar assemblies.	2			
	(iv) Intermediate contact rod springs.	2			
	(v) Lift rod	1			
	(vi) Movable contact rods	2			
	(vii) Upper baffle and contact guide assemblies	2			
	(viii) Lower baffle assemblies.	2			
	(ix) Breaker gasket-sets.	1			
	Net Price of the Lot.			356.98	
3.	For the 2-type FK-439-1500, 800 Amp 110 kV Oil Circuit Breakers:				Hubli for Kavalvad.
	(i) Upper Contact bars.	2			
	(ii) Intermediate Contact bars.	2			
	(iii) Lower Contact bars.	2			
	(iv) Bridging contacts.	4			
	(v) Arcing plates.	8			
	(vi) Contact discs.	2			
	(vii) Port blocks.	4			
	(viii) Centre rods.	2			
	(ix) Contact tips.	2			
	(x) Lift rod.	1			
	(xi) Breaker Gasket-sets.	1			
	(xii) Flexible contact leads.	4			
	Net Price of the lot.			747.67	
4.	For the 1-Solenoid operating mechanism type SD-18 of 33 kV Oil circuit Breaker at Hubli:				Hubli.
	Closing Coil				
	Trip Coil				
	Complete Set of contacts & coils for control relay.	1			
	Complete set of contacts and coils for auxiliary control relay.	1			
	Cutoff Switch.	1			
	Lock out switch.	1			

1.	2.	3.	4.	5.	6.
Latch checking Switch	1				
Net Price of the Lot.				236.05	
5. For the 4-Pneumatic Operating mechanisms Type MA-14 of the 66 kV & 33 kV Oil Circuit Breakers at Harihar, Ranibennur & Byadgi.					Ranibennur.
(i) Motor & belt.	1				
(ii) Cut off switch	1				
(iii) Set of Pressure switches	1				
(iv) "ac" Auxiliary Switch	1				
(v) "bd" auxiliary switch.	1				
(vi) Trip Coil.	1				
(vii) Control valve coil.	1				
(viii) Anti-pump relay.	1				
(ix) Set of heaters.	1				
(x) Set/valve gaskets & seats.	1				
(xi) Choke Coil.	1				
Net Price of the Lot				230.23	
6. For the 2-pneumatic operating mechanism type MA-15 for the 110 kV Oil Circuit Breaker at Kavalvad.					Hubli for Kavalvad.
(i) Motor & belt.	1				
(ii) Cut-off Switch.	1				
(iii) Set of Pressure Switches	1				
(iv) "ao" auxiliary Switch.	1				
(v) "bd" auxiliary switch.	1				
(vi) Trip Coil.	1				
(vii) Control valve coil.	1				
(viii) Anti-pump relay.	1				
(ix) Set of heaters.	1				
(x) Set of valve gaskets & seats.	1				
(xi) Choke coil.	1				
Net price of the lot.				302.32	
7. Bushing Cat No.3B-271 34.5 kV.	2	224.42	448.84		One to Hubli & the other to Ranibennur.
8. Bushing Cat.No.3B-241 69 kV.	1	572.09	572.09		Harihar.
9. Bushing Cat.No.6B-605 115 kV, 1200 Amps.	1	1,169.30	1,169.30		Hubli for Kavalvad.
10. For the 44-type FLO-150100 14.4 kV; 500 amp.Solenoid Operated Oil Circuit Breakers:					One set for each of the Following Sub-Stations:
(i) Main contact fingers with springs, bolts and nuts for nine poles.	9				(1) Ranibennur.
(ii) Stationary arcing contacts for nine poles.	9				(2) Byadgi.
(iii) Moving arcing contacts for nine poles.	9				(3) Haveri
(iv) Moving contacts blades.	9				(4) Haveri for Sirsi.
(v) Contact Operating rod.	9				(5) Haveri for Hanagal.
(vi) Porcelain insulators with Supports.	9				(6) Hubli.
(vii) Sets of gaskets for complete breakers.	9				(7) Dandeli.
					(8) Gadag.
					(9) Dharwar.

1/2 of

1.	2.	3.	4.	5.	6.
(viii) Closing Coils for Solenoid Operating mechanism.	9				
(ix) Trip coils for Solenoid operating mechanism.	9				
(x) Sets of operating Coils for Closing Relay.	9				
(xi) Sets of main contacts for closing Relay.	9				
Net Price of the Lot.			2372.95		
11. For the 51-Relay Equipments:					Hubli.
(i) Sets of main, stationary and movable contacts (53A)	18				
(ii) Complete seal-in units.	18				
(iii) Operating Coil, magnet & top block assembly (53A-4A)	13				
(iv) Operating Coil, magnet and Top block assembly (53A-6A).	4				
(v) ~~Instantaneous~~ Instantaneous attachment complete (53B5A).	1				
(vi) Instantaneous attachment complete (53B7A).	1				
(vii) Sets of main, stationary & movable contacts (55A) (130-IAC 53A4A, 44-AAC53A6A, 3-IAC 53B5A, 1-IAC 53 B7A, & 2-IAC 55A6A over current Relays).	1				
Net Price of the Lot.			593.02		
12. Cat.No.418001, Type BMD fuse (1 AMP, 110kV fuse for 110 kV P.T.).	1	201.16	201.16		Hubli.
13. Cat No.418010, Type BMD fuse (7A, 110 kV fuse for 1000 kVA transformer).	3	201.16	603.48		Haveri (for Sirsi)
14. Cat.No.418025, Type BMD fuses (15A, 110kV fuse for 2000 kVA transformer).	3	201.16	603.48		Hubli.
15. Cat.No.418050, Type BMD fuses (30A, 110 kV fuse for 5000KVA transformers).	6	201.16	1,206.96		3 to the Hubli 3 to Dandeli
16. Cat.No.6328054 6-21 Type EG-1 fuses (1 Amp, 11 kV for P.T.)	27	6.74	181.98		14 to Rani-bennur and 13 to Hubli.
17. Cat.No.6328054, G22 type EG-1 fuses (2 Amp, 11kV for 25 kVA C.P.T.).	21	6.74	141.54		Sets of 3 each to Gadag, Dharwar, Byadgi, Rani-bennur, Haveri, Haveri (for Sirsi) and Haveri (for Hangal).
18. Cat.No.6328054 G-23, type EG-1 fuses (3 Amp, 11 kV for 50 kVA C.P.T.).	3	6.74	20.22		Dandeli.
19. Cat.No.6328054 G-25, Type EG-1 fuses (7 Amp, 11 kV for 100 kVA C.P.T.).	3	6.74	20.22		Hubli.

1. :	2.	3. :	4. :	5. :	6.
20. Cat.No.6328054 G-59, Type EG-1 fuses (1 Amp. 33 kV for P.T-)	6	9.36	56.16	Hubli	
21. Cat.No.6328054 G-69, type EG-1 fuses (7 Amp. 33 kV for 300 kVA C.P.T.)	3	9.36	28.08	Harihar.	
22. Cat.No.6328054 G-71 type EG-1 fuses (65 Amp, 33 kV for 2000kVA transformer).	3	9.36	28.08	Gadag.	
23. Cat.No.6009920 P-1 Insulators (11 kV).	48	10.21	490.08	3 each to Haveri & Dharwar, and 6 each to Hubli Gadag, Ranibenn- ur, Dandeli, Byad- gi, Haveri (for Sirsi) and Hav- eri (for Hangal)	
24. Cat No.6009922 P-1 insulators (33kV)	11	19.02	209.22	5 to Ranibennur and 6 to Hubli.	
25. Cat.No.6009917- P-1 insulators (66 kV).	2	25.80	51.60	Harihar.	
26. Cat.No.152394 P-1 insulators (110 kV)	12	40.70	488.40	2 each to Hubli, Hubli (for Kaval- vad) Dandeli and Haveri (for Sirsi).	
Total		₹	11,541.52		

-----X-----

- Note:- (1) The description given in brackets under-column (2) against each of the above items is meant only for easier reference by this office of the actual operating voltage though slightly different from the actual rating of the equipment being supplied by you. Accordingly the voltages are mentioned as 11, 33, 66 kV & 110 kV although your rating is 14.4, 34.4, 69 and 115kV respectively.
- (2) As spare fuses units are also being included in the above order, we presume that the necessary quantity of S. & C. Synarine finish required for maintenance of the 110 kV fuse units (as per your instruction sheet No.2622) is also being supplied with the fuse units. This may kindly be confirmed.

ITN/24.3.53.

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INTERNATIONAL GENERAL ELECTRIC COMPANY (INDIA) LTD.

Thackersey House,
Graham Road, Ballard Estate,
P.O. Box 992, Bombay 1,
India, March, 25, 1962.

Our Ref:-E-1388/TRC-46045

The Chief Engineer,
Electric Grid Offices,
Government of Bombay,
Mercantile Bank Building,
Fort, Bombay 1.

Dear Sir,

JOG KARNATAK ELECTRIC GRID SCHEME:
RECOMMENDED SPARE PARTS FOR SWITCHGEAR:

AGAINST your order No. 1.3/C-2/874 dated January 9, 1961, we are supplying you the following General Electric power circuit breakers:

44- Type ELO-15	-	100, 14.4 kV, 600 amperes
2- Type FK-439	-	1500, 115 kV, 800 amperes
1- Type FK-439	-	1000, 69 kV, 600 amperes
4- Type FK-339	-	500., 34.4 kV, 600 amperes

Our engineers recommend that in order to ensure proper operation and maintenance of these breakers, you carry stocks of the following spare parts, which are most likely to be required at normal maintenance periods as well as in the event of an unusual emergency:-

ITEM-1: For the 4 - type FK-339-500, 34.5 kV, 600 ampere oil circuit breakers:

- 2 - Upper contact assemblies
- 8 - Flexible contact leads
- 2 - Intermediate contact assemblies
- 2 - Throat bushings
- 1 - Lift rod and fittings
- 2 - Movable contact rods
- 1 - Set of breaker gaskets

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT

\$ 181.40

ITEM-2: For the 1 - Type FK-439-1000, 69 kV, 600 ampere oil circuit breaker:

- 2 - Upper contact assemblies
- 8 - Flexible contact leads
- 2 - Intermediate contact rod and collar assemblies
- 2 - Intermediate contact rod springs
- 1 - Lift rod
- 2 - Movable contact rods
- 2 - Upper baffle and contact guide assemblies
- 2 - Lower baffle assemblies
- 1 - Set of breaker gaskets.

NET PRICE THE LOT F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT

\$356.98

ITEM-3 For the 2 - Type FK-439-1500, 115 kV, 800 ampere oil circuit breakers.

- 2 - Upper contact bars
- 2 - Intermediate contact bars
- 2 - Lower contact bars
- 4 - Bridging contacts
- 8 - ARcing plates
- 2 - Contact disks
- 4 - Port blocks
- 2 - Center rods
- 2 - Contact tips

- 59
- 1 Lift rod
 - 1 Set of breaker gaskets
 - 4 Flexible contact leads

NET PRICE THE LOT F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT

\$747.67

ITEM 4 . For the 1 - Solenoid Type SD-18 operating mechanisms:

- Closing coil
- Trip Coil
- 1 Complete set of contacts & coils for control relay
- 1 Complete set of contacts & coils for auxiliary control relay
- 1 Cut-Off-Switch
- 1 Lock-Out switch
- 1 Latch checking switch.

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT

\$ 236.05

ITEM 5 For the 4 - Type MA-14 pneumatic operating mechanisms:

- 1 Motor & belt
- 1 Cut-Off Switch
- 1 Set of pressure switches
- 1 'AC' auxiliary switch
- 1 'bd' auxiliary switch
- 1 Trip coil
- 1 Control valve coil.
- 1 Anti-pump relay
- 1 set of heaters
- 1 Set of valve gaskets & seats
- 1 Choke coil (when furnished)

NET PRICE THE LOT F.A.S. VESSEL NEW YORK,
BOXED FOR EXPORT SHIPMENT

\$ 230.23

ITEM 6 For the 2 - Type MA-15 pneumatic operating mechanisms:

- 1 Motor & belt
- 1 Cut-off Switch
- 1 Set of pressure switches
- 1 'ac' auxiliary switch
- 1 'bd' auxiliary switch
- 1 Trip coil
- 1 Control valve coil
- 1 Anti pump relay
- 1 Set of heaters
- 1 Set of valve gaskets & seats
- 1 Choke coil (when furnished)

NET PRICE THE LOT F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT

\$ 302.32

ITEM 7 2 Spare bushings, Cat. NO.3BR71, 34.6 KV.

NET PRICE EACH F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT

\$224.42

NET PRICE THE LOT F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT

\$448.84

ITEM 7A 2 - Spare bushings, Cat. 3B741, 69 KV

NET PRICE EACH F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT

\$572.09

NET PRICE THE LOT F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT

\$1144.16

ITEM 8 For the 41 Type ELC-15-100, 14.4 KV,
600 amperes solenoid operated oil circuit
breakers.
Main contact fingers with springs, bolts, and
nuts for eight poles.
Stationary arcing contacts, for eight poles.
Moving ~~assemblies~~ arcing contacts, for eight poles.
8- Moving contact blades
8 Contact operating rod
8 Porcelain insulators with supports
8 Sets of gaskets for complete breaker
8 Closing coils for solenoid operating mechanism
8 Trip coils for solenoid operating mechanism
8 Sets of operating coils for closing relay
8 Sets of main contacts for closing relay.

NET PRICE THE LOT F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT \$ 2109.30

Item 9 For the 51 relay equipments:

18 Sets of main, stationary and movable contacts(53A)
18 Complete seal-in units
18 Operating coil, magnet & top block assembly(53AAA)
4 Operating coil, magnet & top block assembly(53AB)
1 Instantaneous attachment complete(53B54)
1 Instantaneous attachment complete(53B74)
1 Set of main, stationary & movable contacts (53A)
(130-IAC53AAA, 44-AAC53ABA, 3-IAC53B5A, 1-IAC53B7A,
& 2-IAC53ABA overcurrent relays)

NET PRICE THE LOT F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT \$593.02

Our engineers also suggest that you consider carrying stocks
of the following spare fuses and insulators:-

ITEM 10 1 - Cat. No.418001, Type BMD fuse

NET PRICE EACH F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT \$ 201.16

ITEM 11 3 Cat- No.418010, ^{Type} BMD fuses

NET PRICE EACH F.A.S.VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT \$ 201.16

THE LOT
NET PRICE EACH F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT \$603.48

ITEM 12 3- Cat, No.418025, Type BMD fuses

NET PRICE EACH F.A.S.VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT \$201.16

NET PRICE EACH F.A.S.VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT \$603.48

ITEM 13 3 - Cat. No.418050,, Type BMD fuses

NET PRICE EACH P.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT \$-201.16

NET PRICE THE LOT F.A.S.VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT \$ 603.48

²⁷⁻
ITEM 14: Cat. No.6328054 G21, Type EJ-1 fuses

NET PRICE EACH F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT \$ 6.74

NET PRICE THE LOT F.A.S.VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT \$181.98

ITEM 15	21- Cat. No. 6328054 G22, Type EJ-1 fuses	
	NET PRICE EACH F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$ 6.74
	NET PRICE THE LOT F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$141.54
ITEM 16	3 Cat. No. 6328054 G23, Type EJ-1 fuses.	
	NET PRICE EACH F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$ 6.74
	NET PRICE THE LOT F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$20.22
ITEM 17	Cat. No. 6328054 G25, Type EJ-1 fuses	
	NET PRICE EACH F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$ 6.74
	NET PRICE THE LOT F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$ 20.22
ITEM 18	6 Cat. No. 6328054 G-59, Type EJ-1 fuses	
	NET PRICE EACH F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$ 9.36
	NET PRICE THE LOT F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$56.16
ITEM 19	63 Cat. No. 6328054 G-64, Type EJ-1 fuses	
	NET PRICE EACH F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$ 9.36
	NET PRICE THE LOT F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$ 28.08
ITEM 20	3- Cat. No. 6328054 G 71. Type EJ-1 fuses	
	NET PRICE EACH F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$ 9.36
	NET PRICE THE LOT F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$28.08
ITEM 21	74 Cat. No. 6009920 P-1 Insulators	
	NET PRICE EACH F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$ 10.21
	NET PRICE THE LOT F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$755.54
ITEM 22	11 Cat. No. 6009922 P-1 Insulators.	
	NET PRICE EACH F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$ 19.02
	NET PRICE THE LOT F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$209.22
ITEM 23	2 Cat. No. 6009917 P-1 Insulators.	
	NET PRICE EACH F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$ 25.30
	NET PRICE THE LOT F.A.S. VESSEL NEW YORK BOXED FOR EXPORT SHIPMENT	\$51.60

55-
- 1

ITEM 24 35 Cat. No.1 523204 P-1 Insulators.

**NET PRICE EACH F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT**

\$ 40.70

**NET PRICE THE LOT F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT**

\$1424.50

PRICE: The price quoted herein shall be adjusted at the completion of manufacture of the products or each shipping unit thereof to the extent of any general adjustment which the Company may make in its prices for similar products between the date of this quotation and the date of completion of manufacture of the products; provided however, in no event will any increase in price exceed 10% (ten per cent) of the prices quoted herein.

DELIVERY Based on the conditions prevailing at the factory at the present time, we estimate that shipment of the above equipment can be made ex-factory in approximately 14 to 15 weeks after receipt of your order together with complete information including particulars of import licence at the factory.

The delivery dates given in this quotation are estimated and are contingent upon the continued receipt of materials and non-interference of production schedules by U.S. Government orders or regulations.

TERM OF PAYMENT It is suggested that mutually acceptable terms of payment be discussed and agreed upon.

TERMS OF SALE F.A.S. VESSEL NEW YORK

CONDITION OF SALE Will be in accordance with general conditions outlined in enclosed form G;6D(2-52).

IMPORT LICENCE: In the event of an order it will first be necessary to obtain an import licence from the Government of India for importing these materials from U.S.A. therefore, we would request you to arrange to obtain the necessary import licence and send it to us at the time of placing your order with us.

We trust that our quotation as submitted above will meet with your approval. May we look forward to the pleasure of furnishing your requirements?

V.R.25/3/5 .

COPY

47
No.T.E/C-2/19193
Electric Grid Offices,
Mercantile Bank Building, Fort,
Bombay, 1. 2nd July 1952.

To

Messrs. International General Electric
Co. (India) Ltd.,
Graham Road, Ballard Estate,
Bombay 1.

Subj:-Jog Karnatak Electric Grid Scheme
Spare for Switchgear.

Ref:-1) Your No.E-1388/THC-46046
dated 26-3-1952.
2) Your No.E-1388/THC-46513
dated 27-6-1952.

Dear Sirs,

We note that in your above quotation for spares for Switchgear, fuses and insulators you have not included any spare bushings for the 110 kV and 11 kV O.C.Bs. Please state if the spare bushings ordered under transformers are interchangeable with the breaker bushing. Otherwise ^{with} please send us your recommendations for these together with their prices at an early date.

It is also seen that you have recommended two spare bushings for the only one 60 kV O.C.B. ordered for Ha Haribar. Please inform if the transformer bushings ordered for 60 kV and 22 kV transformer bushings can be used for the respective breaker, also. The current carrying capacity and the rupturing capacity of the fuses included in your quotation may please be furnished. It is seen from your above quotation the spare fuses offered for 11 kV are of the type EJ-1 while the type included by you for the main order is of type ED-1. Please let me know whether they are interchangeable. Your early reply is requested.

Yours faithfully,

Sd/- K.S.Hanu,
for Superintending Engineer
(Transmission)

VLR.24/3/53.

INTERNATIONAL GENERAL ELECTRIC COMPANY(INDIA)LTD.

Our Ref:E-1388/46960

Thakkersey House,
Graham Road, Ballard Es
P.O.Box 992,
BOMBAY 1, India.
July 30, 1952.

The Superintending Engineer(Transmission),
Electric Grid Offices,
Mercantile Bank Building,
Fort, Bombay 1.

Dear Sir,

JOG KARNATAK ELECTRIC GRID SCHEME
SPARE PARTS FOR SWITCHGEAR.

Further to our letter E-1388/MS-60193 dated July 7, 1952 formally acknowledging your letter T.8/C-2/19193 dated July 2, 1952 please note the following:

None of the oil circuit breaker bushings are interchangeable with the transformer bushings.

We do not normally recommend complete bushings for the Type ELO-14.4(11 kV) breakers since they are not liquid-filled. Instead we recommend only an insulator and support which we included in Item 8 of our quotation.

The bushings for the 110 kV breakers apparently were omitted from our quotation Item 3 by mistake. We quoted as under:

2 Spare bushings for 115 kV, 1200 amps Cat. 68605

NET PRICE THE LOT F.A.S. VESSEL NEW YORK
BOXED FOR EXPORT SHIPMENT..... \$ 2338.60

The above price is the present day price and billing price will be that ruling at the time of shipment as outlined in our quotation.

It is estimated that shipment can be made in approximately 26 weeks ex-factory after the receipt of complete information including the import and export licence particulars at the factory.

The delivery estimate quoted herein does not reflect the effect of the current steel strike on our factories. When that is known, a revised schedule will be issued if this estimate cannot be met.

Delivery of the material quoted may be subject to delay due to receipt of Defense Rated Orders and MPA Directives issued by the U.S. Government subsequent to the date of this quotations.

The fuses included in our quotation are actually type EG-1. The EJ-1 was a typographical error. The Catalogue number listed are correct for EG-1 fuses.

Yours faithfully,
INTERNATIONAL GENERAL ELECTRIC CO.(INDIA)LTD.

Sd/-..
BOMBAY OFFICE.

VLR.24/3/53.

COPY

7
37
No.Y.8/C-2/26328
Electric Grid Offices,
Mercantile Bank Building, Fort,
Bombay, 1. 29th August, 1952.

To

Messrs. International General Electric
Co. (India) Ltd.,
Thackersey House, Graham Road,
F.O. Box No. 902,
Ballard Estate, Bombay.

Sub:-Jog Karnatak Electric Grid Scheme
Spares for Switchgear.

Ref:-Your letter No.E-1388/TRC-46045
dated March 25, 1952 & No.E-1388/469640
dated July 30, 1952.

Dear Sirs,

With reference to the above, we request you kindly to confirm that you are agreeable to the following terms of payment as per the original order for substation equipment.

- a) 80% of F.A.S. Vessel New York price of the equipment will be paid in U.S. dollars against presentation of shipping documents in India.
- b) 10% of the F.A.S. Vessel New York price of the equipment will be paid in U.S. Dollars six months after completion of manufacture of the equipment.
- c) 10% of the FAS Vessel New York price of the equipment will be paid in U.S. Dollars ~~nixx~~ twelve months after completion of manufacture of the equipment.
- d) Payments as above will be made in respect of each shipping unit of the equipment.
- e) All expenses incurred for ocean shipment, insurance, custom duty, Railway freight, transport to site and storage charges if any due to shipping space not available will be paid in U.S. dollars in respect of expenses incurred in rupees on presentation of your invoices together with original bills if any.

The above terms are the same as those that were accepted in the case of the main order for sub-station equipment.

Yours faithfully,

Sd/-V.R.Vaidya.

Superintending Engineer (Transmission)

VLR.24/3/53.

-12-

INTERNATIONAL GENERAL ELECTRIC COMPANY (INDIA) LTD.

Our Ref:
E-1388/32577

Thackersey House,
Graham Road, Ballard Estate,
P.O.Box 992,
BOMBAY, 1. India.
September 3, 1952.

The Superintending Engineer (Transmission),
Electric Grid Office,
Mercantile Bank Building,
Fort, Bombay.

Dear Sir,

Jog Karnatak Electric Grid Scheme;
Spares for Switchgear.

We thank you for your letter No. T.S/C-2/26328 dated 29th August, 1952, and as desired by you we confirm that we are agreeable to the terms of payment set out in your letter under acknowledgement subject to your acceptance of the clause contained in our letter 64199 dated 11th January, 1951, which has been accepted by you on the main order in your letter No. T.S/C-2/14147 dated 15th January 1951.

Yours very truly,
INTERNATIONAL GENERAL ELECTRIC CO. (INDIA)
LTD.

Sd/-.....
Accounts Department.

vlr.24/3/53.

575 351
VERY URGENT
No.GJR.1862 K.

Letter

Public Works Department.
Bombay Castle (Bombay No.
21st February 1953.

To

The Chief Engineer, Bombay Electric Grid.

Subject:-Jog-Karnatak Electric Grid Scheme:
Spare parts for switchgear.

Reference:Correspondence ending with your letter
No.T.8/C2/33487, dated the 3rd November 1952.

2.Sanction is accorded to incurring of the expenditure amounting to Rs. 75,350/- during 1953-54 for spare parts for switchgear, spare fuses etc. in connection with the Jog, Karnatak Electric Grid Scheme, as a separate item to be charged to "Stock- suspense".

3. Sanction is also accorded to place orders with Messrs.International General Electric Company (India) Ltd on the terms of payment mentioned in your letter No.T.8/C-2/29695, dated the 26th September 1952. The spare parts now to be ordered should be of the same manufacture as the equipment.

4. The expenditure is debitable to the budget head "81-A Capital Outlay on Electricity Schemes Suspense Stock" and should be met from the provision that shall be made therefor for the year 1953-54.

By order and in the name of the Governor of Bombay.

Sd/-....

Deputy Secretary to the Government of Bombay,
Public Works Department.

D.A -Nil.

Copy, with copies of the Chief Engineer, Bombay Electric Grid's letter Nos. T.8/C-2/29695, dated the 26th September 1952, and T.8/C-2/33487, dated the 3rd November 1952 forwarded to -

The Finance Department,
the Accountant General, Bombay (through the Finance
Department)

VLR.28/3/53.

No.T.8/C-47 (11866)
Electric Grid Offices,
Mercantile Bank Building, Fort,
Bombay, 1. 30 March, 1953.

To

M/s. International General Electric Co.
(India) Ltd.,
Thackersey House, Graham Road,
Ballard Estate, Bombay.

Sub:-Jog-Karnatak Electric Grid Scheme
Order for spares for sub-station equipment.

Ref:-1) Your letter No.E-1388/TRC-46045
dated 25-3-1952.
2) Our letter No.T.8/C-2/19193
dated 2-7-1952.
3) Your letter No.E-1388/46960
dated 30-7-1952.
4) Our letter No.T.8/C-2/26328
dated 29-8-1952,
5) Your letter No.E-1368/32577
dated 3-9-1952.

Dear Sirs,

With reference to the above correspondence, I accept the rates quoted by you in your above letters dated 25-3-1952 and 30-7-1952 for the different spare parts for switchgear recommended by you, and request you to arrange for the supply of the same subject to the following terms and conditions:

2. EQUIPMENT:- The equipment to be supplied under this order detailed separately in schedule 'A' attached to this letter. This being an order for spare parts for switchgear already supplied by you under our main order No.T.8/C-2/874 dated 9-1-1951, the parts being supplied by you under this order should be identical in type and characteristics to the corresponding items supplied by you under the main order. The final quantities, as quoted by you, have been slightly altered to suit our requirements.

3. PRICES:- The individual rates quoted by you for the different items have been given in the attached Schedule 'A'. The total F.A.S.vessel New York price is \$ 11,541.52 (Eleven thousand five hundred and forty one dollars fifty two cents only) These prices are subject to the proviso that the materials will be billed to us at the prices prevailing at the time of shipment subject to a ceiling of 10%(ten percent). You will, however, arrange for ocean shipment, insurance, clearance through customs and booking to the respective destination Railway Stations of these materials by goods train on our behalf for which you will charge only actual costs. You should submit original bills along with your invoices in respect of such claims.

Handwritten notes:
L.A. 10/8/53
3/10/53

The price quoted above does not include Sales, use, excise or similar taxes, and these if leviable will be to our account.

4. DELIVERY:- The shipment of these materials shall be made within 26 weeks (twenty six weeks) ex-factory from the date of receipt of necessary valid Import Licence for the same by you.

5. TERMS OF PAYMENT:- Payment in respect of the materials supplied by you under this order will be made as follows:-

a) 80% of the F.A.S. Vessel New York Price of the Equipment will be paid in U.S. Dollars against presentation of shipping document in India.

b) 10% of the F.A.S. Vessel New York price of the Equipment will be paid in U.S. Dollars Six months after completion of manufacture of equipment.

c) Final 10% of the F.A.S. Vessel New York Price of the Equipment will be paid in U.S. Dollars twelve months after completion of manufacture of equipment.

d) Payment as above will be made in respect of each shipping unit of the equipment. The payments will be made by the Executive Engineer (Civil) Jog Karnatak Electric Grid Scheme Division, Hubli to whom the invoices supported by necessary documents should be sent under intimation to this office.

e) All expenses incurred for ocean shipment, insurance, customs duty, Railway freight, and storage charges, if any, due to shipping space not available will be paid in U.S. Dollars in respect of expenses incurred in U.S. Dollars and in Rupees in respect of expenses incurred in rupees on presentation of invoices, together with original bills, if any.

f) If the equipment is stored under the circumstances applicable to the main order, you may, at your option, change the terms of payment so that all dates of payment which are related to documents resulting from steamer shipping to relate to the date of completion of manufacture of the equipment. In the event the terms of payment are so changed, the documents presented by you shall be your invoices and affidavit certifying to the date of completion of manufacture of the equipment.

6. INSURANCE:- The insurance for the materials should be full and should cover for any loss or damage upto destination.

he Insurance should be effected with the Indian Insurance Company, -es' Association Pool, Bombay, as in the case of the main order.

SHIPMENT:- The materials should be shipped in Indian Ships, if this does not involve any undue delays. You should enquire of the availability of Indian Shipping, well before each shipment becomes ready and ship by non-Indian Ships only, if the delay in waiting is likely to result in demurrage or storage charges. Subject to no liability for payment of such charges, the materials must be shipped by Indian Ships.

8. PENALTY FOR DELAYS IN DELIVERY:- Should the delivery of any of the materials be delayed for causes not beyond your / Principal's reasonable control, you shall pay to this Department as a liquidated damages a sum equivalent to 2%(two percent) per month of the F.A.S. vessel New York price of the material with respect to which the delivery has been delayed, provided that your liability under this provision shall not exceed 10%(ten percent) of the total F.A.S vessel New York, Price of this contract.

9. DESPATCH INSTRUCTIONS:- The Railway Stations to which the materials should be consigned have been mentioned in the schedule against the respective items and on arrival of the materials in Bombay, after ~~xxxx~~ clearance through customs the goods should be booked by goods train to the respective station and Railway Receipt forwarded by Registered Post to the Executive Engineer (Civil) Jog-Karnatak Electric Grid Division, Hubli for further action.

10. OTHER TERMS AND CONDITIONS: Other terms and conditions governing this order shall be as stated in the Standard General conditions of contract of this Department.

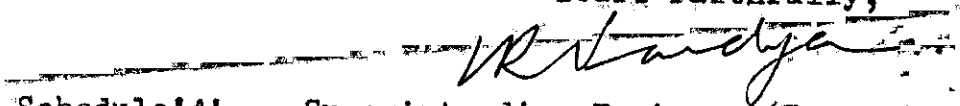
10. CONTRACT DOCUMENT: A formal agreement in respect of this order will be entered into for which documents will be forwarded to you in due course.

11. IMPORT LICENCE:- In case assistance of this Department is required for obtaining the necessary Import Licence you may ~~kind-~~

kindly forward the necessary application forms and other papers to this office for forwarding to the proper authorities.

Kindly acknowledge the receipt and acceptance of this order and arrange for an immediate commencement of the equipment at your works.

Yours faithfully,


Encl:-Schedule 'A'. Superintending Engineer (Transmission).

Copy of the order letter together with the copies of letters under reference forwarded with compliments to:

- 1) The Secretary to Government, Public Works Department, Bombay
with reference to G.L. No.GJK-1552K dated 21-2-1953.
- 2) Copy to Accountant General, Bombay.

U/25

VLR.24/3/53.

5221/1223

21-2-53

~~359~~ 359 GSK ~~441553~~
P.W.D. 39057

KBr
submitted.

2. Please see para 2 of the G.h. at
p-43 ante. The C.E. has endorsed
a copy of the order placed by
him with the International
General Elec. Co. (Inc) India.
No action is neeq. on this

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To

The Minister for Industries,
& Localself Government.
Bombay State. Bombay.

1002369/2-12-52

From: The Secretary,
Betelnut Growers Association. C/o T. M. Hegde Motinsar.
Sirsi. N. Kanara.

Sir,

Under the executive of Jog Falls Grid scheme Electrical lining which is now in progress in this District, is passing through the jungles, Bettas, and Malki lands on Siddapur Sirsi road. We have no objection for pulling on these lines. Ofcourse, the Electric current from Jog falls will be helpfull to the citizens of Sirsi. But, next ones must should not be the woe of another. And unless the Government take such a view, their development progress will remain undeveloped.

The said Electric line while being put on, the Bettas, and Malki lands round about 100 feet of the lines are being cleared off, without least consideration to advantages and dis advantages of others in the villages. Our say is this: even if the clearance of the trees is a necessity, the Executive would have done it with moderation, with temperance, with planning, and without putting others to loss.

It is humiliating ~~that~~ to note that while clearing the trees the Executive have encroched the Bettas and Malki lands belonging to different cultivators and owning propriety rights of the lands.

The Bettas ~~and~~ which were granted to the betelnut growers to make use of the leaves as manure, the wood etc., in the strip for their daily uses are now much handicaped as a result of the clearance.

We want to know what do the Government propose to do for these betelnut growers who have been deprived of their Bettas-- an essential material for their betelnut gardens.

As a result of this perplexity the Betelnut Growers Association of Sirsi Taluka has passed a resolution unanimously at its special General Meeting held on 4-11-1952. The text of the resolution is as follows:-

" This association requests the Government to make good of the losses incurred to the Betelnut Growers as a result of ~~their~~ clearance of their Bettas and Malki Lands, while pulling on the Jog Falls Electric line, wherever possible fresh Bettas must be granted to the growers from the Jungle."

We request the Government to take immediate steps in this matter and advise the Association of their proposed action.

24-11-1952

Yours faithfully,
For Betelnut Growers Association

H. V. H. Balgandi

Secretary.

(H.V. H. Balgandi.)

Copies to:-

- 1) The Minister for Forest.
& Agriculture. Government of Bombay.
Bombay State. Bombay.

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P. W. D.
GSK1552

116129

W. H. H. 11/12
S. H. H. 11/12
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→ 363

GJK 1552

116129

K.Br.

Submitted with ^{P-5 Post} neeq. draft for approval.

P.W.D.

KSH.
5/12/52.

by
S. V. M.

D.S. (I. O. E.)

No. GJK 1552 K.

501 -

GJK 1552/116129.

To

Shri N.V.H. Balgandi,

Secretary, Betelnut growers Association,
C/o. T.M. Hegde Motinsar

Sirsi, North Kanara.

P.W.D.,

B.C. (Bombay No.1),

6th December 1952.

Subject:- ~~Request of~~ Loss suffered by the Betelnut growers.

Sir,

P-1

I am directed to acknowledge the receipt of your letter dated the 24.11.1952, on the subject mentioned above, addressed to the Minister for Industries and Local Self Govt., and to state that the same is receiving attention. A further communication will be addressed to you in due course.

Yours faithfully,

S.A.Nil.

As to the Govt. of Bombay,

P.W.D.

a copy of P-1

Copy together with the letter refs. to above, forwarded to the C.E., B.E.G., for favour of very early remarks.

K.G.H.

5/12/52.

72nd 6/12

No. GJK 1552 K.

Public Works Department,
Bombay Castle (Bombay No.1),
6th December 1952.

From

The Assistant Secretary to the Government of Bombay,
Public Works Department.

To

Shri N. V.H. Balgandi,
Secretary, Betelnut growers' Association,
C/o. T. M. Hegde Mokinsar,
Sirsi, North Kanara.

Subject:- Loss suffered by the Betelnut growers.

.....

Sir,

I am directed to acknowledge the receipt of your letter dated the 24th November 1952, on the subject mentioned above, addressed to the Minister for Industries and Local Self Government and to state that the same is receiving attention. A further communication will be addressed to you in due course.

Yours faithfully,

B.P.P.

[Signature]
6/12/52

O/K

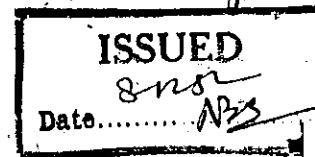
D.A.-Nil.

Assistant Secretary to the Government of Bombay,
Public Works Department.

3, KKW/6-12-52.

copy.....

Copy together with a copy of the letter.
referred to above, forwarded to the Chief Engineer,
Bombay Electric Grid for favour of very early remarks.



For sent 28-11-11
8/12

To

The Collector of Kanara.
KARWAR.

Subject:-Jog Karnatak Electric Grid Scheme.
110 kV Transmission line.
Jungle clearing in Betta Lands in Manjavalli
village by the Jog Karnatak Electric
Grid Division.

Reference:-Application dated 15-10-52 from Shriyuta
Gajanan Umeshwar Hegde, Alesar, Sirsi and
others.

I am surprised to read some of the statements made in the above application (addressed to you with a copy to me) of the betel-nut garden owners who are fully aware of the real facts which are quite different from those stated in the application. It is clear from the penultimate para of their application itself that the applicants are fully aware that this Department is cutting the trees in Betta lands not for any devastation but for the execution of a Scheme which is meant for the Development of some areas of Karnatak. The facts are:-

1) Ordinarily to minimise the cost on the Scheme, the transmission line would have passed through valuable betel-nut gardens resulting in a great permanent loss to the cultivators. To avoid this hardship to them this Department has taken a great care (even by carrying out alternative reconnaissance surveys) to see that the Transmission line route does not pass through the valuable betel-nut gardens. Wherever necessary extra angles and consequent extra lengths of lines have been introduced to avoid the betel-nut gardens. In selecting the Transmission line route, the betel-nut gardens were thus carefully avoided, but Betta lands which are nothing but jungle adjoining the betel-nut gardens could not naturally be avoided. The statement of the land owners that betta lands are cleared without having any regard to their interests is therefore misleading. The transmission lines are being constructed under powers of telegraph authority vested in the officers of this Department and to call the jungle clearance for transmission lines as "Devastation" is nothing but a misuse of that word.

The statement that the devastation of betta lands is
~~done helter-skelter~~ is also

done helter-skelter is also improper. Exact widths depending upon the normal height of trees in the particular section are being cut as required for the safety of the transmission lines. The jungle clearance in Sirsi Jog Section has been started only very recently and if ~~any~~ anywhere the work has remained half done, it is due to the betel-nut garden owners' un-necessary obstruction to the jungle clearance parties.

It will be therefore seen that statements made in the application are un-justified and a suitable reply may please be given to the applicant. The main burden of the application however is, the request of the betel nut garden owners for allocating other betta lands in exchange of those where jungle clearance is done by this Department. It would have been much better if the applicants instead of making a claim on unjustified grounds had made a simple request to you for substitute Betta lands. This Department has certainly no objection to the Revenue Department allocating other betta lands in exchange after ascertaining the bonafides of each case from this Department.

It will be remembered that as requested by me in my letter No. JKD/3504 dated 14-8-52 you have already instructed the Mamlatdars concerned to inform the villagers concerned not to cause obstruction or hinderance to the jungle cutting parties vide your letter No. C/D/9193 of 29-8-1952.

I shall be obliged if you will kindly arrange to impress again on the villagers and particularly the betel-nut garden owners that this Department has on its part avoided acquisition of betel-nut gardens by a very careful survey of the whole country side and expects the betel-nut garden owners to co-operate, instead of causing un-necessary hinderance to the jungle cutting parties, causing consequent delays in the execution of the Jog Karnatak Electric Grid Scheme which is meant for the Development of Karnatak.

Sd/- G.T. Sathe.

Executive Engineer (Civil)
Jog Karnatak Electric Grid Division,
Hubli.

Copy forwarded with compliments to the Superintending Engineer

Copy forwarded with compliments to the Superintending Engineer(Transmission) Electric Grid Offices, Bombay for information together with a copy of application referred to above. The betta lands referred to above belong to either Revenue Department or Forest Department. The betel-nut garden owners have got only the right of removing leaves from the trees on the betta lands. The leaves are used as manure for the betel-nut gardens.

Encl:- one copy of application.

. Copy forwarded with compliments to the Assistant Engineer(Civil) Jog Karnatak Electric Grid Sub-Division, No.1, Hubli and No.III, Hubli for information.

VLR.23/12/52.

313
From:

Gajanan Umesheshwar Hegde, Alesar, Sirsi
N. KANARA.

To

The Collector and District Magistrate,
Kanara, Karwar..

Subject:- Devastation of Betta lands in Manajavalli village by the
Government Jog Electric Grid Managements.

Sir,

With reference to the above subject, we the undersigned
gardeners of the above referred Mangavalli village in Sirsi of North
Kanara, most respectfully beg to submit as follows:

Even the alien Government after a great deal of universed
representations and agitations by the Betel-nut gardeners, carried
wide experiments with the betelnut cultivation in these regions so
as to be quite convinced as to the utter need of at least 9 acres of
Bettas for the upkeep of each acre of betelnut gardens and was
pleased to assign betta lands to that minimum extent as complimentary
to our Betelnut Gardens while at the same time an assessment of Re1/-
per acre of Betta lands allocated, was merged into the gardens
revenue. So, as matters stand, any devastation of our Bettas by even
the Government, would, on the one hand be quite contrary to the
Government's ruling principles while on the other hand, we would be
deprived of the essential means of successfully carrying on our
valuable garden cultivation, as any thrival of Betelnut trees, pepper
vines of cardamoms of bananas, entirely depends upon the manure that
are being yearly supplied to the Betelnut Gardens out of these Betta
lands.

But the above mentioned Government Joga Electric Grid
Managements, with little or no regards to the above fact have at
once let loose devastation upon our Betta lands by cutting trees
and felling them helter-skelter on either side of their proposed
Electric line of demarcation, as if these Bettas solely belong to
them and as a result, it would be quite well nigh impossible for us
to achieve a successful thrival of our gardens if such a devastation
would continue without the Government allotting additional Bettas
to us as compensation. We are fully aware that such a devastation
of our Bettas, in view of the Government's Development Schemes, is
quite unavoidable, but at the same time the Government too, on its
parts, should not be less aware that fresh Bettas out of the forest
areas should be assigned to our gardens to suit our convenience and
garden needs. It may matter little if we, helpless individual cult-

- 2 - 14

cultivations are victimised to such tyrannies of the Government but a Government transgressing its own laws and regulations is sure to receive its own repercussions upon the professed principles of justice, equality and fraternity.

So in the circumstances, we only pray the Government may be please to immediately grant additional Betta Lands out of the nearest forest areas of our choice in lieu of our devastated Bettas, for which act of kindness we shall ever remain,

Sirsi.
15-10-1952.

Yours faithfully,
Sd/-...

True copy=
Sd/-...
Clerk to
Executive Engineer (Civil),
Jog Karnatak Electric Grid Divn.,
HUBLI.

VLR. 23/12/52.

LETTER.

No. JKDH/5732
Office of the Executive Engineer (Civil)
Jog Karnatak Electric Grid Division,
Hubli, Dt/13-22-1952.

To

The Superintending Engineer,
(Transmission),
Electric Grid Offices,
Bombay No.1.

Subject:- JOG KARNATAK ELECTRIC GRID SCHEME.
110 kV Transmission line passing through
Betta Lands.

Reference:- Your office u gent letter No. T.8/21/38052
dated the 11th December 1952.

With reference to your letter quoted above enclosing
Government endorsements Nos. GJK-1552-K dated 6-12-52 and No.
NS/51/114076 dated 5.12.52, I have to offer my remarks as under:-

The letter from the Secretary Betelnut Garden owners
as also the criticism made by the Sirsi Correspondant of Nagarika
does not contain any fresh points than those raised by the appli-
cants Shriyuts Gajanan Umeshwar Hegde and others. I have replied
in full detail in my letter No. JKDH/4768/52 of 24th October 1952
addressed to the Collector of Kanara all the points raised in
that application and my reply to the present references would be
practically the same. I have not so far received any reply from
the Collector of Kanara. I had however personally contacted the
Mamlatdar of Sirsi on 28-10-52 and he was convinced about the
efforts made by this Department in avoiding Betelnut gardens and
had instructed his sub-ordinates to advise all the Betelnut
garden owners to allow jungle clearance through Betta lands.

To summarize, the position, it will be remembered
that utmost care was taken to avoid the Betelnut gardens while
surveying and fixing the portion of 110 kV Transmission line which
passes in the vicinity of Betelnut gardens. Two points were always
kept foremost in view while fixing this portion of Transmission
line-one to minimise the cost on the scheme and the another to
avoid acquisition of Betelnut gardens which are very valuable and
are the main sources of income to the villagers nearby. After
very careful reconnoissance the Transmission line route has been
fixed carefully avoiding almost all the valuable Betelnut gardens
even by introducing extra angles in the Transmission line contrary
to good Transmission Line Practice. The transmission line had how-
ever to be taken through the adjoining jungle, some part of which
forms betta lands which of course could not be avoided due to

- 2 - 16

lands being scattered all over.

In this connection it will be also remembered (vide my letter JKDH/1210 of 14th April 1952) that, we requested even the Telegraph Authorities to allow the line to remain close to the telegraph line than normally allowed to avoid acquisition of betelnut gardens. It will be thus seen that everything possible has been already done by this Department to avoid major damage to Betelnut gardens and Government with your concurrence may kindly be requested to impress upon the Betelnut garden Owners, this fact

From the cuttings of the Nagarika (Kannada weekly) dated 18-11-52 as also the copy of the application of the Secretary Betelnut Growers Association, Sirsi it may be seen that the main request of the Betelnut Growers is to grant them wherever possible fresh Bettas from the jungle in lieu of the Bettas which are being cut. It will be seen that it has already been mentioned in my letter of the Collector of Kanara, referred to above, that this Department has certainly no objection if fresh Betta Lands are allocated to the Betelnut growers in exchange of those where jungle clearance is done. As lands are in charge of the Revenue Department it is upto that Department to grant the lands in exchange and Government may therefore be requested to advise Revenue authorities to allocate fresh Betta lands in exchange of those where clearing is done by this Department.

In this connection it should please be remembered that Betta lands belong to Government (in most cases to Revenue Department, in few cases to Forest Department) the Betelnut garden owners have got only certain privileges such as to make use of the leaves as manure or to cut few trees for agricultural use on payment of certain Royalty. There are vast jungle areas round about the Betelnut gardens and there should be no difficulty to the Revenue Department to allot fresh Betta Lands in exchange.

In the application from the Secretary, Betelnut Growers' Association question of Malki Lands (Private lands) is raised. The trees in Malki lands are cut after issuing usual notices to the Land owners and after taking their consent. Cut wood is handed over to them and in such cases no compensation is

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- 8 -

payable to them. However, wherever any fruit trees or other valuable trees are cut, the trees are being valuated with the help of Revenue authorities and Compensation would be paid to the owners as fixed by Revenue Department. The jungle clearance work in private lands is done under the Powers of Telegraph Authority vested in the officers of this Department and in case of lands belonging to the Revenue Department and Forest Department, with previous permission from the officers concerned. It will be observed from the copy of endorsement No.0/B dated 29-8-52 of Collector of Kanara (copy attached) that he has permitted clearance along 110 kV line as along back as 29-8-52 and the jungle clearance work in Sirsi area was started only after receipt of this letter.

Sd/- . G.T.Sathe.
Executive Engineer (Civil),
Jog Karnatak Electric Grid Division,
HUBLI.

VLR.23/12/52.

77

Copy of letter No. JKDH/3504 of 1952 dated 14th August 1952 from the Executive Engineer, (Civil) Jog Karnatak Electric Grid Division, Hubli, Addressed to the Collector of Kanara.

.....

The Government by notification No. 7756/36 dated 25-2-1946 has delegated to this department the same powers as those granted to the Telegraph authorities under section 10 to 19, and 19(1) of the Telegraph Act No. XIII of 1885 with regard to the laying of Electric Power and Telephone lines and placing of supports, in connection with the Electric Grid Scheme of the Province. Under these powers the Electric Power and Telephone line structures can be placed in lands belonging to private ownership subject to reasonable compensation being paid to them for any damage.

2. As the work of tree cutting, clearing a width of 132' along the route at the 110,000 volts overhead Transmission Lines of the Jog-Karnatak Electric Grid Scheme has been already taken up in hand by contractors of this Division and it will be necessary for the contractors to have access to private property and clear trees and other obstructions on the route for the purpose.

3. Compensation for the trees in private land will be paid by this department in accordance with the usual revenue department procedure.

4. I, therefore, request that the Mamlatdars of the following talukas * of your district may kindly be advised to inform the public of the villages concerned not to cause obstruction or hindrance to the jungle cutting parties and to inform the circle inspectors, Talaties, and village officers concerned to help the departmental men in making "Panchanamas" for the tree cut and valuation thereof.

I shall be grateful if very early action is taken in this matter under intimation to this office.

*Siddapur, Sirsi, Yallapur, Haliyal & Mundgodpeth in North Kanara District.

Kalghatgi, Hubli, Dharwar in Dharwar District.

No. 0/B
Karwar, 29-8-1952.

Copy forwarded for information, guidance and necessary action to:-

The Mamlatdars of Siddapur, Sirsi, Yellapur, Haliyal and Mundgod.

2. They are requested to inform the villagers concerned not to cause obstruction or hindrance to the jungle cutting parties. The circle staff and the V.Os. should be asked to render necessary help to the subordinates of the Executive Engineer, (Civil), Jog-Karnatak Electric Grid Division, Hubli in making "Panchanamas" regarding the valuation of the trees cut down etc,

Copy to the Prant Officer, K.D. & C.D., Kanara. O.C. signed by Collr.

Sd/-
for Collector of Kanara.

Copy W.Cs, to the Executive Engineer (Civil) Jog Karnatak Electric Grid Division, Hubli, for information.

"TRUE COPY"

VLR. 24/12/52.

LETTER.

No.T.8/21/ 39835
Electric Grid Offices,
Mercantile Bank Building, Fort,
Bombay, 1. 26th December, 1952.

To

The Secretary to Government of Bombay,
Public Works Department,
Bombay.

Sub: Jog Karnatak Electric Grid Scheme
Grievances of Betelnut growers of
Sirsi Taluka in respect of Transmission
lines passing through Betta Lands.

x linked case II.

Ref:-1) G.L.No.NS-51/114076 K
dated 5-12-1952.
2) G.L.No.GJK/1552 K P-5
dated 6-12-1952.

Reference is kindly invited to the application recently submitted to the ^{Hon.} Minister for Industries by the Betelnut Grower's Association, Sirsi (copy forwarded to this office under above letter dated 6-12-1952) and the news item appearing in "Nagarika" (copy forwarded to this office under above letter dated 5-12-1952). I now enclose herewith a copy of similar application made by Shri. G.U. Hegde on behalf of Betelnut growers to the Collector of North Kanara. Our Field Officer in charge of construction, the Executive Engineer (Civil) Jog Karnatak Electric Grid Division, Hubli has already acquainted the Collector of North Kanara, vide his letter No. JKDH/4768 dated 24-10-1952 (copy enclosed herewith), with the nature of the grievances put forward by the Betelnut garden owners. He has further explained the matter quite in detail in his letter No. JKDH/5732 dated 13-12-1952 addressed to this office (copy enclosed herewith). In these letters, the Executive Engineer (Civil) Hubli has answered all the issues raised by Betelnut growers.

In accordance with the usual practice, to ensure safety of the transmission lines a certain width of land on both sides of the transmission line has to be cleared of all trees. Great care has been taken by this Department to avoid valuable betelnut gardens by introducing additional angle points although the same is not desirable for good transmission line practice. It will be seen from Executive Engineer (Civil) Hubli's letters that every effort has been made by this Department to avoid major damage to betelnut gardens. The main request of the Betelnut growers is to grant them, wherever possible fresh Betta Lands

from the

from the jungle in lieu of the Betta lands which are being cut. Most of the Betta Lands belong to Revenue Department and some to Forest Department. The rights of the Betelnut growers is ^{limited} ~~intimated~~ to the use of the leaves of the trees in Betta lands for manure. I consider this demand of the Growers as reasonable and the Collector of North Kanara has already been informed by our Executive Engineer(Civil) Hubli that this Department has no objection to the above proposal. ~~As~~ the lands are in charge of the Revenue Department, the matter may kindly be referred to them and fresh Betta Lands may be granted to the Betelnut Growers, from ~~our~~ the surrounding forest lands, which are considerable and are suited for betelnut cultivation.

- Encl:-1) Copy of E.E.Hubli's letter dated 24-10-52.
2) Copy of Shri.G.U.Hegde's application dated 15-10-52.
3) Copies of E.E.Hubli's letter dated 13-12-1952 and its enclosures.

Sanichandran
24/12/54
Chief Engineer.

VLR.23/12/52.

K
24/12 6.12.1

GJK1552

125/65

R

24/12

24/12 26.12

K.Br.

P-5

P.W.D.

Submitted with refce. to G.F. No: GJK 1552 K,
dated the 6-12-1952.

2. In view of the concluding portion of the
C.E., B.E.G.'s letter dated the 26-12-1952, these
papers may be refd. u.o. to the R.D., to
offer their remarks on the suggestion made by
the C.E., B.E.G., that fresh Betta lands may be
granted to the Betel nut growers, from the
surrounding forest lands, which are
considerable and are suited for betel nut
cultivation.

K.B.H.
18/1/53.

~~See~~
15-1-53

(IV.)

not been R.D.d.

19-1-53.

EV	DEPARTMENT
File No.	(22)
Date	18/1/53
Serial No.	B

Pa

See no (19-2-53)
19/1

R.D.
B

Pl. see the P.W.D. note dt. 18.1.53.
It is necessary to call for the
Collector's remarks in the matter.
These papers may be returned
to the P.W.D. after keeping
copies of P.W.D. note, and Collector's
on pages 23, 21, 15. * 91 anti for taking
necessary action. The P.W.D. will be
appraised of this department's remarks.

C/1653

Am: 8
21-1

after the Collins report is recd:
in the matter.

22-1-53
28

22
28/1/53

AS (IV)

u.o.r. to the P.W.D. dt. 29/1/53.

K
56
JK 1552
13898

K
split
6/2

K. Br.

P.W.D.

Submitted with refce. to this
Dept. u.o.r. dated the 19-1-1953.
Await.

K. Br.
21/1/53.

ASB
9/2

Impdt.

REVENUE DEPT
File No.
Date 25 APR 1953
S. 121 B

P.W.D.

K. Br.

Resubmitted.

2- These pps. may again be sent
up to the R.D. with a request to state
further developments with ref. to that Dept. 9/2
note dt. 28/1/53. p. 23-24.
24-4-53.

24/1/53

AS (III)

u.o.r. to the R.D. dt.

24-4-53.

24/4
24/4
28/4

355 $\frac{20}{3}$

The papers may be returned to the P.W.D. with the remarks that the remarks of the Director of Kanara have not as far been received. He is being expedited.

$\frac{89}{20953}$

$\frac{20}{26.5.53}$

AS(III)

V. I. R. to P. W. D. dated 28-5-53

QJK 1552

63638

$\frac{K}{116}$

2nd November

K. P. W.

P. W. D.

Armit.

$\frac{10}{41652}$

$\frac{10}{41652}$

AS(III)

Ann (8516)

516

To

The Secretary to Government,
Revenue Department, Bombay.

No.0/B.9193.

Camp Sirsi, 22-5-1953.

Subject:- Jog Karnatak Electric Grid Scheme.

Reference:- Government Endorsement, R.D., No.0/16603-B,
Dated 11-2-1953.

In pursuance of letter No.JKDH/3504, of 1952, dated 14-3-1952 from the Executive Engineer (Civil), Jog Karnatak Electric Division, Hubli, I have already issued instructions to the Mamlatdars of Siddapur, Sirsi, Yellapur and Mundged under this office No.0/B-9193, dated 29-8-1952, to inform the villagers concerned not to cause obstruction or hindrance to the jungle cutting parties. They have also been directed to issue instructions to the Circle staff and the village officers to render necessary help to the subordinates of the Executive Engineer (Civil) Jog Karnatak Electric Division, Hubli in making "Panchanamas" regarding the valuation of the trees cut down etc.

The Electric Department has already taken action to cut the trees along the Electric line and necessary help is being rendered to them by the Circle Inspectors and the village officers concerned in drawing up panchanamas etc.

A The villagers of Manajwalli have complained against the cutting of trees in Betta lands. They say that, they should be granted other betta lands, in lieu of those that are cleared for the electric line. The Betta lands are quite necessary for garden owners for better cultivation of garden crops. Their request is, therefore, proper. The information regarding the Betta S. Nos., the extent of area covered by the electric line in each S.No. etc. in respect of Mundgesar village has now been received from the Executive Engineer and I am taking necessary further action to assign additional Betta to the affected gardeners.

The garden owners concerned have been informed that the Electric Grid Department has taken the work of clearing portions of betta lands over which the electric line passes and that the scheme is for the development of

the

28

1953

the Karnatak.

1953

Collector of Kanara.

True copy

1953

(Original in file no
RD 0/65640/69245)

YOK.
29-6-53.

Submitted with ref. to the Min.'s orders dt.
the 2-12-52.

2. The ~~latter~~ betta lands belong to either Rev. Deptt. or Forest Deptt. These lands are assigned to betel nut ~~el nut~~ garden owners who have got the right of removing leaves from the trees on the betta lands. The leaves are used as manure and are quite necy. for better cultivation of garden crops. Part of the betta lands had to be cleared for the work of 110 K.V. Transmission ~~line~~ line of the Jog Karnatak El. Grid Scheme. The Betelnut Growers Association has alleged that the Grid Deptt. has cleared their betta and malki lands without any moderation, temperance and planning ^{and} has put the betelnut growers into loss. They have also requested for grant of fresh betta lands.

3. In order to ensure safety of the transmission lines a certain width of land on both sides of the transmission line has to be cleared of all trees. From the detailed report of the Ex. Engr., Jog Karnatak El. Grid Dn., it will however be seen that there is no truth in the above allegation made by the Association. Great care was taken to avoid valuable betelnut gardens ^{by} introducing addnl. angle points although such points are undesirable for good transmission line practice. Even the Telegraph Authorities were requested to allow transmission lines to remain close to the telegraph lines than normally allowed, in order to avoid acquisition of betelnut gardens. Major damage to the gardens was thus avoided. Two points - to minimise the cost of the scheme and to avoid acquisition of betelnut gardens - were always kept foremost in view while planning this scheme. The transmission line had however to be taken through adjoining...

adjoining jungle, a part of which forms betta lands. These lands are scattered all over and could not therefore be avoided. As has been stated in para 2 above, these betta lands belong to Govt. and the right of the Betelnut Growers is limited to the use of leaves in these lands for manure. The demand of the Growers for allotment of addnl. betta lands is reasonable and the R.D. was requested to look into this matter vide ^{p 23} u.o.r. dt. 19-1-53. ^{p 27}

4. In his letter No. O/B.9193, dt. 22-5-53, addressed to Govt. in the R.D., the Collr. of Kanara has reported that he has collected information from the Ex.Engr. and is taking nece. action to assign addnl. betta to the affected ^{gardeners.} ~~gardeners.~~ The R.D. may be requested to expedite the Collr. for early completion of this work.

x A at p 27

5. A suitable draft reply to the Asson. is ^{up} put for approval.

-H/
29/6/53

-H/
30/6

Qu
27/53

D.S (G & E)

Secy.

Min.

13
49

3-1-53

21

No. ^{GJK}~~CSK~~ 1552 K.

P. W. D.,
B.C. (Bombay No.1),
3rd July June 1953.

To

The Secy.,
Betelnut Growers Association,
C/o Shri T.M.Hegde Motinsar,
Sirsi, North Kanara.

Sub:- Jog Karnatak El.Grid Scheme:
Grievances of Betelnut Growers
of Sirsi Taluka in respect of
Transmission line passing through
Betta Lands.

Sir,

p-1

I am directed^{p-1} to refer to your letter, dt.
24-11-52, on the above subject, addressed to the Min.
for Industries, and to state that in order to ensure
safety of the transmission lines, a certain width of
land on both sides of the transmission line has to be
cleared of all trees. Every effort ~~by the Grid Deptt.~~
has been made by the Grid Deptt. to avoid acquisition
of betelnut gardens. For this purpose, the Grid Deptt.
has even introduced addnl. angle points although such
points are undesirable for good transmission line
practice and has also erected the transmission lines
closer to the telegraph line than normally allowed.
The transmission line had to be taken through adjoining
jungle, a part of which forms betta lands. As these
lands are scattered all over, they could not be avoided.
Govt. is however aware of the fact that your demand
for allotment of addnl. betta lands is reasonable,
and the Collr. of Kanara is taking neccy. action to
assign addnl. betta lands to the affected gardeners.
I am, therefore, to request you
~~You are therefore requested please~~ to contact the
Collr. in the matter.

Yours faithfully,

Asstt. Secy. to the Govt. of Bombay,
P.W.D.

D.A:- Nil.

Copy forwarded to -

p-21

the C.E., B.E.G., with ref. to his letter No.
T.8/21/39835, dt. 26-12-52,

the...

3-
the Collr. of Kanara, with ref. to his letter No. O/B.9193, dt. 22-5-53, addressed to Govt. in the R.D., the Rev.Deptt. with a request to expedite the Collr. of Kanara to assign betta lands to the affected gardeners at an early date. f. 27

VMW.
29/6/53.

No.GJK 1552 K.

Public Works Department,
Bombay Castle (Room No.1),
3rd July 1953.

From

The Assistant Secretary to the Government of Bombay,
Public Works Department.

To

The Secretary,
Betelnut Growers Association,
O/o Shri T.M.Hegde Motinsar,
Sirsi, North Kanara.

Subject:- Jog Karnatak Electric Grid Scheme:
Grievances of Betelnut Growers of
Sirsi Taluka in respect of Gramam
-ssion line passing through betta
lands.

....

Sir,

I am directed to refer to your letter, dated 24th November 1952, on the above subject, addressed to the Minister for Industries, and to state that in order to ensure safety of the transmission lines, a certain width of land on both sides of the transmission line has to be cleared of all trees. Every effort has been made by the Grid Department to avoid acquisition of betelnut gardens. For this purpose, the Grid Department has even introduced additional angle points although such points are undesirable for good transmission line practice and has also erected the transmission lines closer to the telegraph line than normally allowed. The transmission line had to be taken through adjoining jungle, a part of which forms betta lands. As these lands are scattered all over, they could not be avoided. Government is now ever aware of the fact that your demand for allotment of additional betta lands is reasonable, and the Collector of Kanara is taking necessary action to assign additional betta lands to the affected gardeners. I am, therefore, to request you to contact the Collector in the matter.

Yours faithfully,

5 PR

P.R.D.

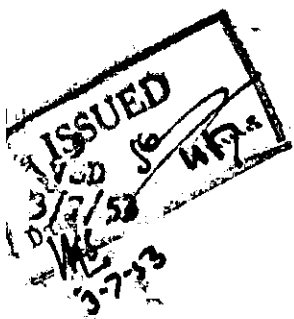
0/6

3-7-53
Assistant Secretary to the Government
of Bombay, Public Works Department.

D.A.-Nil.

Copy forwarded to -

- the Chief Engineer, Bombay Electric Grid, with reference to his letter No.E.8/21/39835, dated 26th December 1952,
- the Collector of Kanara, with reference to his letter No.O/S.9193, dated 22nd May 1953, addressed to Government in the Revenue Department,
- the Revenue Department with a request to expedite the Collector of Kanara to assign betta lands to the affected gardeners at an early date.



No. O/81340-B

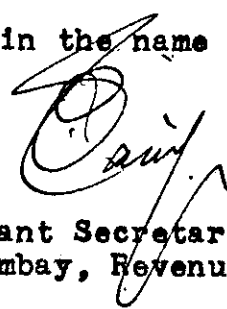
35 325
Revenue Department
Secretariat, Bombay No.1
8th July 1953.

Subject:- Jog Karnatak Electriict Grid
Scheme.

MEMORANDUM.

The undersigned presents compliments to the Collector of Kanara and, with reference to Government Endorsement, ^{y 33} Public Works Department, No. GJK 1552 K, dated 3rd July 1953, is directed to request him to see that betta lands are assigned to affected gardeners as soon as possible.

By order and in the name of the Governor of Bombay,



Assistant Secretary to the Government of
Bombay, Revenue Department.

Copy to the Public Works Department.

RHB/9-7
2/9/53

14
11/17

11/17

GJK 1552
81020

PP

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3077 9 JK 1552/81020
P.W.D.

K. Pr.

Submitted for information
Record.

kl
17/7/53
A.S. (IV)

PRD.
18-7-53

file
21/7

~~475~~ 1552

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31633.	9593
46513	127006
40147	91063
50093	104181.
60153	11175
71543	~~1552~~
82946	4231.
110400.	17815
96672	39057
110071	116129
105535	125165
115512	13898
115513	63638
109763	81020
7611	
109761	
4128	
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